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AEROTHERAPY, OR REMEDIAL APPLICATIONS OF AIR.

In its broadest sense, aerotherapy includes all remedial applications in which the atmosphere is made the chief agent. In the Turkish and hot-air baths it of course plays a necessary part, but the chief effect is obtained by the application

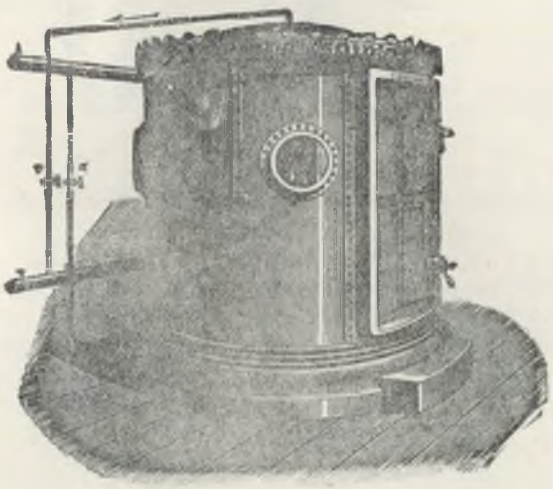

Fig. 1.—Pneumatic Cabinet.

of heat through the medium of the air. That the atmosphere itself is a powerful medium of affecting the system beneficially or otherwise, is evidenced by a large number of facts well known to every one, as the influence of climate, altitude, and other familiar means of securing what is termed "a change of air." It is not, however, to these applications of air that we wish now to refer, but rather to more specific uses of the element, and

Fig. 2.—Apparatus for Inhaling Compressed Air.

methods that may be made use of in all latitudes alike. Aerotherapy is still in its infancy, but enough facts have been de-

termined and tested by experience to warrant the conclusion that the air is a potent therapeutic agent for use in certain classes of cases at least.

AIR-BATH.

The air has a very soothing effect upon the body when allowed to come in contact with the entire surface. It answers a very valuable purpose when a water bath is impossible, or when the patient is too feeble to endure the application of water. A sleepless person will often fall into a sound and refreshing slumber after walking a few minutes in his room with the whole body exposed to the air. The effects of night labor upon literary people may be partially counteracted by the air-bath. Benjamin Franklin was accustomed to pursue his writing to a late hour after divesting himself of his clothing, and he recommends the practice to others compelled to labor late with the pen.

THE USE OF COMPRESSED AND RAREFIED AIR.

What is known as the Pneumatic treatment, which consists in the use of compressed and rarefied air, has become quite popular in France and Germany within a few years. This treatment has been little employed, however, in this country, its use having been confined almost wholly to irregular practitioners and quacks, who have employed it in a form which is known as the vacuum treatment. This treatment consists in exposing either the whole or a part of the body to air which has been either compressed or rarefied.

In the application of compressed air to the whole of the body the patient is placed in a small room constructed for the purpose, into which air is admitted until a pressure of one and one-half or two atmospheres is obtained, the air being withdrawn as rapidly as needed to remove the products of respiration. The patient sits or lies in this room from one or two hours to several hours, according to the effect desired. A cabinet of this kind, such as is employed in Paris, is represented in Fig. 1.

In the cabinet described, the patient may be subjected to the influence of rarefied as well as compressed air; but the use of rarefied air is usually confined to the exterior of the body. For this purpose it is applied by means of suitable receptacles for the arms and legs from which the air can be partially exhausted. The first impressions produced by the applications of rarefied air, especially when made in the manner last described, are decidedly unpleasant. The same is true to some extent of local applications. Dr. Waldenberg, Professor in the University of Berlin, has devised a portable apparatus by means of which compressed air may be inhaled. A representation of the apparatus is given in Fig. 2. These various devices are chiefly employed in the treatment of diseases of the chest, although the so-called vacuum treatment has a wider range of application and is said to be useful in the treatment of paralysis, defective development of the limbs, and also as a derivative, relieving the brain and nerve centers of congestion. We have employed vacuum treatment to some extent, and believe it to be a useful agent. Figs. 3 and 4 represent the forms of apparatus which are in use at the Sanitarium. From experiments which we have recently made with Waldenberg's apparatus, represented in Fig. 2, we think it capable of producing most excellent re-

Fig. 3.—Junod's Boot, with Air-Pump.

Fig. 4.—Junod's Arm.

sults, especially in chronic bronchitis, asthma, incipient consumption, and other chronic lung affections. It may be used in such a manner as to increase exhalation as well as inhalation, and thus produce a greatly increased development of the chest. The same apparatus used for compressed air may be employed in the inhalation of superoxygenated air, or air which contains more than the usual proportion of oxygen. Various medicated vapors are also employed by this means. The remedial value of pneumatic treatment is less thoroughly established than almost any other of the remedial agents, on account of the small amount of attention which this agent has received from scientific investigators. We believe, however, that it is capable of producing excellent results. In a case of chronic emphysema in which we employed the apparatus, causing the patient to breathe into rarefied air, one-fiftieth of the ordinary pressure being removed, the patient was able to exhale 160 cubic inches of air after an ordinary respiration, though he could ordinarily exhale but 40. A consumptive patient, a young lady with remarkably narrow chest, who could inhale but 30 cubic inches of air, by a few weeks' treatment became able to inhale 120 inches.

PATENT MEDICINES.

[THE following is an abstract of a very interesting paper read before the Sanitary Convention held last March in this city, by Prof. A. B. Prescott, M. D., entitled, "Nostrums in their Relations to the Public Health."—*Ed.*]

"To what extent are the so-called 'patent medicines' consumed in the United States, in the State of Michigan, in the civilized world? In the absence of statistics, an estimate sufficient for present considerations may be asked of any person who walks abroad in these days. A few years ago, an inquirer drew the conclusion* that about eighty million dollars worth are annually sold in the United States, this being at the rate of two dollars for each man, woman and child in our country. This may be below the true estimate; but it is an outlay exceeding that for some things in which we are held to be liberal. For the salaries of all the teachers in all the public schools of this proud State of Michigan, the yearly payment amounts to but one dollar and thirty-two cents for each inhabitant. The total expenses in the public schools of the United States, do not require payment of over two dollars from each inhabitant. We may claim, then, an equal liberality toward public schools and patent medicines, with partiality toward neither.

"In England, in 1879, the stamp tax on nostrums was two-thirds of a million of dollars. In Germany, although the law has undertaken to restrict or prohibit them, they are sold in immense quantities, American nostrums competing sharply with those of *der Vaterland*. In spite of regulations by the French Government, Paris is a center of trade in the nostrums of the world. Russia is plagued with them, and licenses a part and prohibits the rest. The Swiss federation has been trying to prohibit the sale or advertisement of medicines of secret composition. Belgium is setting about to prohibit their importation; she will not tolerate humbugs of foreign origin. The United States taxes them. A single proprietor, perhaps not the most extensive, has paid our government $120,000 per annum for stamps to put upon the nostrums of his own production. At retail, then, the people paid three million dollars a year for this man's wares, and his own annual income was not far from one million dollars. This amount equals the average net income of a railroad three hundred and eighty-four miles long, in the United States, in the year for which this comparison was made. There are extensive wholesale dealers in 'patent medicines' alone, and the catalogue of a single house has included fifteen hundred kinds of nostrums.

"No small share of the trade of the fifteen thousand drug-stores, and of a considerable number of grocery stores, in the United States, consists in the sales of nos-

*Dr. R. W. Murphy: *Pacific Medical and Surgical Journal*, May, 1874.

trums, and yet a single 'patent-medicine king' may make as much net profit in a fortunate year as all the retail drug-stores in a city like Detroit, with their patient service of filling prescriptions by day and night, and with their paltry commissions on the nostrums included. How much is paid for advertising nostrums, who can tell? Some one has said, over ten million of dollars a year,—enough to give over twenty universities of the first class, with free instruction, a better support than Harvard possesses. You have a piece of property to sell, or a legitimate and thriving business to cultivate, and you advertise it liberally in one or two of your local papers, but a man who is putting a pill on the market will fill up a larger space than yours, and his advertisement will be spread out in the newspapers of every city in the country,—his paltry tokens will be displayed along the dead walls of a hundred thoroughfares,—the types may be already setting up translations of his bragadocio in the newspapers of other nations.

"But what is the actual, average nature of the nostrums of the civilized world, to take them as they really are—in nothing to extenuate or set down aught in malice—what is their power upon the body, and their influence upon the health of the people at large? We limit our inquiry to such as are distinctively nostrums,—that is, bearing no practically true statement of their constituents, and we must of course depend upon the results of chemical analysis for our information of the substances that are in them.

"We will begin with "Pain Killers," one of the most harmless kinds, because chiefly of external application. Few of them are wholly inert, and most of them have a transient stimulant effect. Of *eight* of them, subjected to analysis, six were found to contain the ordinary spirit of camphor, which every thoughtful mother keeps in the house; three contained ammonia, such as any hartshorn bottle would furnish; four were charged with red pepper; all had some alcohol; oil of sassafras was found in four of them, oil of turpentine in two of them; tincture of guaiac in two, chloroform in one and myrrh in one. One of the most successful contained in a half-dollar bottle, one-and-a-half fluid ounces of soap liniment, with one-half fluid ounce, each, of capsicum tincture, ammonia water, and alcohol,—in all, four articles of the United States Pharmacopœia. One that was sold at a dollar for a four-ounce bottle, by a Chinese doctor, who had studied many years in the Celestial Kingdom, and who visited the towns of Michigan in a gorgeous car drawn by four horses, with a company of musicians and a lecturer, consisted of camphor spirit, lavender compound spirit, ammonia water, sassafras oil, and alcohol. One made and sold in Germany, as Nature's Own Cure, a sure relief for one hundred and sixty-six different diseases, consists of red pepper tincture, ammonia, and alcohol. Another, noticed since grouping the eight articles, is a Five-minute Fragrant Pain Curer that will quiet every ache within five minutes by an exact time-piece. It is a mixture of ether, glycerine, common salt, and water. A Golden Wonder, or Seven Seals, for all the ills liable to occur in this life, is a mixture of ether, chloroform, camphor, peppermint oil, red pepper, and alcohol. Nearly all of these articles are directed to be taken internally, as well as applied externally. Now almost every person would have some judgment as to how much of ammonia, or turpentine, or camphor, or ether, or strong alcohol, it would be safe to take at once, if to be taken at all, in seeking relief from a violent pain; but what judgment can anybody have as to a safe quantity of such talismanic articles as "ready relief," "wizard oil," or "magic master of misery"?

A class of nostrums finding considerable sale in Michigan, is the line of Ague-cures. Of *six* of these, collected and analyzed in this State, five were found to contain the cheaper alkaloids of Peruvian Bark, that is, the medicinal principles accompanying quinine, and of similar effect, but held in less esteem, so that they are separated from quinine and sold at a much lower price. Red pepper was found in two, sulphuric acid in two, molasses of syrup in five, and wintergreen oil in one. One

consisted of a thin mixture of powdered charcoal, the tinture of chloride of iron, and syrup. These articles were all extended especially to those who had found injury instead of relief from the taking of quinine and other preparations of the bark, and each was published as a new discovery.

"The hopeless diseases—those dread afflictions that find no cure in the resources of science, and no positive encouragement from the honest physician—furnish a tempting field to the nostrum vendor. The Promissory Cures for Epilepsy are very numerous. Of those analyzed by myself, for some years, the greater number have consisted of various disguised forms of bromide of potassium,—the common remedy for palliation of epilepsy, and one familiar to almost every epileptic and his friends. The last instance that came to hand had a little red bitter-bark, common cinchona, in fine powder, mixed with the water-solution of the bromide. The sufferer found so much relief from it that he got it analyzed so as to obtain it without paying such an excessive price as was charged for it, but the result of the analysis is likely to lessen his confidence in it. In a German report of the analyses of *nineteen* articles sold to the people for epilepsy, only four were found to contain the bromide of potassium; six contained various miscellaneous ingredients, mostly vegetable, and of little or no effect of any kind, and nine were wholly trivial and inert. One of the latter was a red-colored spirit of camphor; another was a powder of roasted acorns; another an amulet of certain seeds quilted in cotton to wear about the neck. It is noticeable that four of these articles—steadily sold for years under the same name and with the same declarations, had yet undergone an entire change of composition. In one case, a powder which had maintained a steady reputation for relief of epilepsy during seventy years had been changed in its composition three times, the only constant constituent being the volatile oil of cajeput, by which it was scented. At one time it contained magnesia; during two changes it retained muriate of ammonia; and for a long while contained valerian root.

"It is hardly probable that a single purchaser of any of these articles—all held at prices a hundred times above their cost—would have taken them if knowing their composition. But in the uncertainty of the unknown, in the vague and imaginary possibilities of the hidden, perhaps in a misdirection of the instructive appeal of the distressed to the supernatural for relief and restoration, the fancy of the poor and well-nigh desperate victim of an obstinate malady, clings to the irrational assumptions and specious promises of the craftily worded advertisement, as to the very spectre of a chance, for recovery. Just as men, driven to straits, will put their last pittance into the lottery instead of the savings' bank, or as men find in their natures a temptation to venture their prospects at the gaming table, or as harrassed persons in critical times turn to the fortune teller; so, with the better excuse of bodily prostration and nervous restlessness, against his own judgment, and suffering with a glimmering apprehension of the wholly unscrupulous character of the human harpies who practice on his credulity, the sick man tries one game of chance among *the unknown remedies*, and tries again, one more, and tries one after another. But mark you, here is a difference: the lottery-wheel, the gaming table, and the fortune-teller are fully outlawed by the common intelligence of the times, and their victims are few; but, on the other hand, the miracle-promising panaceas are not fully discarded by the current thought of the people, and their victims are very many."

Atmospheric Food.—An interesting fact, of which most people are unaware, is that at least three-fourths of a necessary aliment is made up of air. This being the case, the relative importance of pure air and uncontaminated food is three to one. Very few people would be willing to take their ordinary food with so large an admixture of dust as is daily taken with their aerial food. Gaseous dirt is much more dangerous than solid filth.

SUNSHINE AND HEALTH.

THE sun's rays possess a subtle influence potent for the accomplishment of many of the most marvellous of Nature's processes. Not the least striking of its effects is its influence upon the human system. A recent writer says:—

"Sir David Brewster has justly called sunlight 'the very life-blood of Nature.' The ancients worshiped the sun as Apollo, and also made him god of the healing art. They had their sunny terraces on the tops of their dwellings, where they could bask and bathe in the healthful, life-giving sunshine. The pathological importance of this agent is admitted, theoretically, by all intelligent persons. There are, indeed, ignorant people who make their homes as dark as their minds; who love darkness rather than light, because the admission of light into either their brains or their dwellings would reveal much of rubbish and dirt. But people are getting more correct views, and beginning to welcome light of all kinds as a gift of God, who is the Father of lights.

"The dynamic value of sunshine is emphasized by the Italian proverb, 'Where light is not permitted to go, the doctor will have to go.' The stimulus of light is as indispensable to the proper oxygenation of human blood, and to vigor of health, as it is to the germinal life of the vegetable, or the development of animal spawn. The transformation of a tadpole, which Dr. Hammond accomplished in fifteen days in sunlight, would not be completed in darkness in one hundred and twenty-five days. Various animals, from the rabbit to the cow, have developed tubercles, simply by depriving them of sunlight. Dr. Kane, the Arctic explorer, tells with what anxiety he and his ghastly company watched the sun's return to bring, as he said, its 'blessed medicine' to those pale and wasted sufferers. Cretinism, or idiocy, atrophy of the limbs, and other diseases are common where God's healing sunshine is shut out.

"The imperial surgeon of the Russian service, Sir James Willie, at St. Petersburg, says that there were *three times* as many cases of sickness on the shaded side of the military barracks as on the sunny side, though the air, food and discipline were the same. Florence Nightingale, Baron Dapuytren, and other eminent authorities, join their testimony to the influence of this potent agent in healing the sick, as well as in preserving the health of the well. Pure air and exercise are invaluable, but, as Dr. Willard said before the Legislature, 'The triad is inseparable. The absence of sunlight will originate disease.'"

FEEDING AND CARE OF INFANTS.

THE fact that fully one-third of the human family perish before the age of five years, is sufficient apology for devoting an article to the consideration of this subject. Notwithstanding the immense number of physicians, nurses, and mothers, who have had much experience in the rearing of children, the amount of accurate information on the subject of infant care and feeding possessed by the general public is very meager. We shall endeavor to summarize as precisely as possible the most reliable information to be gathered from experience and research on this subject.

INFANT DIET.

Carefully collected statistics show beyond room for reasonable doubt that the most active cause of infantile disease is improper feeding. This cause is particularly active during the warm season of the year, which occasions the immense number of deaths from various digestive disorders at this period. The careful observance of the following suggestions will rarely fail to secure immunity from disorders of the digestive organs:—

1. Milk is the natural and proper food for children from infancy to the age of twelve or eighteen months. Starchy foods cannot be digested, owing to the fact that the digestive element of the salivary secretion is not formed in sufficient quantity during the first few months of life to render the child able to digest farinaceous foods, such as potatoes, rice, fine-flour bread, and the like.

2. As a general rule, an infant should be

fed once in two or three hours during the day time, and once at night until one month old. After this time, it should not be fed at night, and it should take its food no more frequently than once in three hours during the day time until four months of age. Between four and eight months, the intervals should be gradually prolonged to four hours. After this time the fourth meal should be gradually dropped off, so that at twelve months, the child will take its food but three times a day.

3. If the child is deprived of its natural food, a healthy wet-nurse should if possible be secured—at least until the child is two or three months old. When a suitable wet-nurse cannot be secured, milk from a healthy cow constitutes the best food. Care should be taken in the selection of a cow's milk, that being preferred which is obtained from a cow which has calved two or three months previously. The health and care of the cow, particularly the character of her food, are matters of importance which should receive attention, as there is no doubt but that consumption is frequently communicated to infants from cows whose lungs have become diseased through confinement in close stalls with foul odors, and deficient and improper food. Cow's milk should be diluted at first to one-half, the proportion being gradually increased as the child's stomach is strong enough to bear it. Pure water, lime water, barley water, and thin well-boiled and strained oatmeal gruel, may be used to dilute the milk. The object of the dilution is, first, to render it more nearly like mother's milk in the proportion of nutriment which it contains, and second, to render it less liable to form hard curds in the stomach, which are very likely to occur when the milk is taken undiluted.

4. Cow's milk, or other fluid food, is best given to an infant with a proper nursing bottle. The best forms of nursing bottles are those which are furnished with rubber caps such as are shown in Figs. 1 and 2. This should be removed and thoroughly cleansed with warm water in which soda or saleratus has been dissolved in proportion of a teaspoonful to a pint each time the bottle is used. Both the nursing bottle and the rubber nipples should be kept immersed in a weak solution of soda when not in use. They should also be cleansed the second time just before the child is fed. Neglect to observe this precaution is one of the most common causes of stomach disturbances.

FIG. 1.

FIG. 2.

5. The diet of the mother while nursing is of very great importance, as anything that will disturb the system of the mother, will affect that of the nursing infant more or less. Her food should be nourishing, simple, and wholesome. Stimulants of all kinds, whether in the form of alcoholic drinks or irritable condiments, should be carefully avoided. Pastry, desserts, ice-cream and confectionery, and all similar articles should be wholly avoided. Oatmeal porridge or milk and the various whole-grain preparations, eggs, and, with those accustomed to its use, a moderate allowance of meat, together with an abundance of ripe fruits, constitute the best diet. With reference to increasing and diminishing the supply of milk by regulation of the diet, see paragraph on this subject elsewhere. Vegetables, such as cabbage, turnips, and carrots, together with peas, beans, and onions, which are very likely to produce colic in the child, should be carefully avoided.

6. Feeble infants, especially those who are born prematurely, will need to be fed a little more frequently than others, and will require extra care.

7. The interior of a child's mouth, as well as its lips, should be carefully wiped free from milk or other food after feeding, a moist cloth being used for that purpose.

CAUTIONS RESPECTING INFANT FEEDING.

1. Too frequent feeding is a very common practice; and is one of the most active causes of colic and various other forms of indigestion in children. Many mothers wonder why the children do not grow fleshy, notwithstanding they have a voracious appetite and eat nearly all the time; when the simple reason is that the food taken is not digested and assimilated on account of the weakened and disordered state of the digestive organs. Frequent feeding at night is not only unnecessary, but exceedingly harmful. After the first month or two, infants require no food at night. If they are properly educated upon the matter of diet from the start, they can be managed without any difficulty.

In order to break children of the habit of eating in the night when the mothers have been in the habit of nursing them at all hours of the night as well as the daytime, a little warm water may be given in the nursing bottle instead of allowing food. This will often satisfy the child's cravings so that it will go to sleep.

2. Overfeeding is a much more frequent error than the opposite. Very frequently children are allowed to take too much at a time. This is the most common cause of vomiting in infants. Fortunately their stomachs are so constructed that the surplus of food may be easily expelled; but sometimes this is not the case, and often very serious disorders of digestion result. The child should be removed from the breast when its hunger has been appeased, and should not be urged to take more when it is evidently satisfied.

3. The child should never be allowed to sleep at the breast, or with a nursing bottle to its mouth.

4. The child should never be put to the breast to stop its crying. Children cry in consequence of disturbances of the stomach much more often than from hunger. The child will often nurse as though hungry when the stomach is already full of undigested food, being permitted to do so by the pain or discomfort which it suffers. Children often cry in consequence of the irritation of pins, but no matter whether any other cause for crying be found or not, the child should not be nursed except at its regular hours.

5. No other food but milk, except such fluids as are used to dilute cow's milk, should be used until after several teeth have made their appearance. As a general rule, bread and other farinaceous food cannot be digested before the age of seven or eight months. Meat should never be given to children until after they have acquired a sufficient number of teeth to masticate it thoroughly, and then should be allowed only in very small quantities once a day. Young children are very much better off without meat as a general rule.

6. Children should never be given sugar-teats, candies, sweetmeats, cheese, nor pastry. The habit many nurses have of feeding an infant sugar and water every hour or two, during the first one or two days of its life, is a practice which cannot be condemned too strongly. The same may be said to be the cause of colic and other disturbances. Catnip tea and similar decoctions used at this time, are exceedingly harmful, not only disturbing the stomach and giving the child discomfort, but preventing the natural desire for food, and depriving the mother of the benefit to be derived from suckling the child. Placing the child early to the breast is one of the best means of preventing "gathered breast" and securing a plentiful supply of milk. The practice that many people have of taking young children to the table and feeding them bits of almost everything on the table, cannot be too strongly discountenanced. It is one of the most prolific causes of digestive disturbances in children.

8. As a general rule, menstruation and pregnancy, either of which may occur during nursing, are likely to affect the child injuriously, and it requires weaning. As a general rule, a woman should discontinue nursing upon the occurrence of conception or pregnancy. Three lives may be affected injuriously by a neglect of this rule.

9. Special care must be taken in the warm season of the year, of children that

have been weaned or that have been raised on the bottle, to avoid feeding sour milk or milk that has become slightly changed by standing. In very hot weather, milk sometimes begins to sour in a very short time. This is especially the case when milk cans or pans have not been cleansed as thoroughly as they should be. If either the mother or nurse in charge of an infant, would obtain a "test paper," which can be found at any drug-store, and always test the child's milk when there is any possibility of its being sour, many cases of illness and death would be avoided. The process of testing is a very simple one, it only being necessary to observe that when the milk is acid, the blue paper will be turned red, and when it is sweet, no change will occur.

10. Another danger to which children are exposed, is the use of milk which has been poisoned by standing in pans made of tin adulterated with lead. This danger is now becoming quite a serious one. Infants are more susceptible to injury than adults, on account of their weakness and little vitality.

11. Many mothers have sacrificed their children by attempting to rear them upon the various patented "baby foods" sold in the stores. A majority of these foods are starchy preparations which contain little or no nourishment valuable for infants. Some of them, particularly the various preparations made according to the directions of the eminent German chemist, Prof. Liebig, are useful, but not more so than well-boiled oatmeal or graham gruel with the addition of cow's milk. The Infant Food advertized in this journal under the head of Sanitarium Foods, is a most excellent and reliable article.

12. Sexual excesses have a very damaging influence upon the nursing infant.

13. A nursing mother should never give way to fits of anger or depressing emotions of any sort, but endeavor to improve and sustain her general health in every possible way by proper diet, daily exercise in the open air, abundance of sleep, avoidance of overwork, etc.

WEANING.

Under this head it is important to call attention to the following points:—

1. The proper time for weaning a healthy infant is at about one year of age. Very weakly children sometimes require longer nursing. The custom practiced by some women of prolonging the nursing period to two years or more, is injurious to both mother and child.

2. The process of weaning should be conducted gradually. At the age of eight or ten months the child may be fed bread and milk, or oatmeal porridge once a day, this article being substituted for mother's milk. As it grows older, the preparation of these articles of food may be increased, and some other articles, as perfectly ripe fruit, with now and then a portion of a baked potato, simple soups, etc., may be given. Graham bread should be invariably used in preference to fine flour bread. If necessary, the coarsest of the bran may be sifted out. By the adoption of this plan, at the end of twelve months nursing may be discontinued altogether without the child suffering any serious consequences.

From this time, the diet of the child should still consist chiefly of graham bread and milk, baked potatoes, ripe fruit, and equally simple articles of food. Meat, coarse vegetables, butter, tea and coffee, mustard, pepper and other condiments, pastry, preserves and sweets of all kinds, rich puddings and sauces, dessert, and all articles difficult of digestion, should never be given to young children; indeed, the world would be vastly better off if these articles were rarely if ever taken either by children or adults. When the child is costive, oatmeal porridge as a principal article of diet, is an excellent means of regulating the bowels. In making oatmeal porridge, the milk should not be boiled, but should be added after the porridge is done.

3. As a general rule, children should not be weaned in hot weather, as slight changes in diet are often sufficient to produce serious disturbances at this season of the year.—Ed.

ADULTERATION OF BREAD AND MILK.

THE fact that these two staple articles of food are often largely adulterated, is sufficient reason for the enactment of stringent laws against the adulteration of foods and drinks, if no other articles of common use were subject to harmful sophistication. That adulteration is much more extensively practiced than is generally supposed, is unquestionably true. At the last Annual Meeting of the American Social Science Association, Prof. S. W. Johnson presented a valuable paper on this subject, a few paragraphs of which, relating to the adulteration of bread and milk, we quote as follows:—

"Sago and tapioca originally were preparations of starch made in the Indies or Brazil, but now they are perfectly imitated on a large scale from potato and corn starch, and the imitations are every whit as good as the genuine, and being in large demand, are sold at a price that is not unreasonable.

"Next to bread, milk ranks in importance on the list of foods that are subject to adulteration. We have it on good authority that milk, after being robbed of its cream and diluted with water to cheapen it, has been mixed with sugar to sweeten it, with salt to develop its flavor, with annatto and turmeric to improve its color, with soda and chalk to keep it from souring, with gum, dextrin, emulsion of hempseed, boiled starch, and even pulverized brains to thicken it.

"The most common adulteration of milk is by the addition of water, and where there is no milk inspection, this, and the removal of cream, are the only usual modes of tampering with it, unless soda is added to keep sweet what otherwise might sour before it could be disposed of.

"In 1869 and 1870, Prof. Chandler, now president of the Board of Health of New York, directed examinations of five hundred and fifty samples of milk of that city. The only adulteration that could be detected was water. In forty-five cases, milk was seized by the police the moment when it was undergoing the process of dilution. By chemical analysis, or by the use of the lactometer (lacto-densimeter), the quantity of water added was ascertained, and the average amount found to be over 26 per cent, or, for every three quarts of milk, one quart of water was sold. It was estimated that in this way forty million quarts of water were annually peddled out at the average rate of 10 cents per quart, making 'business' to the amount of $4,000,000 per year, or $12,000 per day.

"Some one has stated, I know not how correctly, that the number of cows that not long since supplied milk to London was not enough to give to each inhabitant of that metropolis more than a tablespoonful of pure milk daily."

THE TOBACCO PROBLEM.

ESTHETIC VIEW.

As a matter of esthetics, of mere good breeding, a volume might be written. Can gentlemen have any idea of the discomfort and annoyance, not to say anything worse, occasioned by this tobacco vice? It is bad enough to encounter it when we take up a paper or a magazine, in opening a letter, or sometimes in entering a room where the sickly fumes have been caught and imprisoned; but to have it sprung suddenly upon us in our most unsuspecting mood, and with no possibility of escape!

You are a guest in a charming household, and at a late hour seek your room in the third story. As the weather is blustering and your bed stands near the window, you dare not raise it; but, instead, you open your door. Soon that unmistakable vapor ascends from away down-stairs. Beginning to cough, you get up and shut the door. Through the cracks and the keyhole it still creeps in, causing a sense of faintness and suffocation. There is nothing to do but to open your window. Between the cold air on the one side, and the "choice Havana" whiffs on the other, so subtly telegraphed up to you from the polished gentleman and scholar, luxuriating in his paradise of smoke below, you both shiver and cough.

Tired out, you fall, at length, into a disturbed slumber, till, becoming suddenly conscious of a strong wind blowing through the window, you quickly close it. Too late, however; for you awake in the morning with a sore throat and an aching head, followed, it may be, by a severe sickness.

Has your accomplished host the smallest idea of his own responsibility in the case? *Not he!* and you open not your mouth to accuse him. Indeed, if you once do this, can you ever shut it? For alas! wherever you go,—to post-office, market, or store, to do an errand or to call on a friend,—still that everlasting perfume! You encounter it on land and water, going out and coming in, walking and riding, in omnibuses, cabs, and cars. Even through the pretense of its banishment from the latter, the all-pervading breath of the inveterate smoker or chewer catches you before and behind, on your right hand and on your left, while from the smoking-cars comes floating in that indescribable tobacco-laden air.

You purchase a garment; but when it reaches home, you perceive the same sickening smell, and before you can wear it, you are obliged to give it a thorough airing.

You lend a book. It comes back telling the same stale story. So that, too, must be ventilated.

Stopping transiently at some boarding-house, you go to your room, and have occasion to open a little bureau-drawer. There rushes forth an offensive stench that almost knocks you down. It is as if the long-imprisoned ghosts of a thousand cigars were struggling to escape.

You go into the temple of the Lord. *It* has got there before you. Hospitably inclined, you open your pew-door to a stranger. He no sooner enters than you repent of your good deed; for with him enters such an offensive odor that all your comfort in the service has disappeared.

Now, there are common civilities which it is not expected any true man will violate. To refrain from smoking or chewing in the presence of others is no special virtue, any more than to refrain from rude elbowing and crowding and stepping on your neighbor's toes. To insist, however, on doing this, and in the very face of others,—is it not an infraction of the commonest laws of courtesy? What right has one to fill God's pure air, which is as much mine as his, with such loathsome fumes?

The public highway is not a smoking-room; and, if it would be regarded as an indictable offense for one to carry around with him assafœdita or any other vile compound, and to fling it broadcast as he walks the streets or enters private dwellings, why should not the doers of the same with this noxious weed be also liable to indictment?

You don't *regard* it as an annoyance to others? Do you take others at all into the account?

Not an annoyance! How, then, do you interpret the conspicuous posters in various countries?

"No smoking here!"

"Smoking positively forbidden!"

"No smoking abaft the shaft!"

"*Nicht geracht!*"

"*Hier nicht geraucht!*"

"*Ne fumez pas ici!*"

"*Il est defendu de fumer!*"

And what means the label "Smoking cars"?

Think for a moment of the strange potency of a habit which makes the public parading of such rules necessary in order to preserve common decency. It is bad enough as it is—indeed, it is often more than the innocent part of the traveling public knows how to bear; but were these very few, and sometimes ill-kept, regulations entirely done away with, such a dreadful tyrant is this TOBACCO, and so incomprehensible and almost incalculably is it stronger than its subjects, that a reign of terror would speedily ensue, when no uncontaminated man, woman, or child would dare to venture forth. Is not this strange lack of consideration and courtesy due, in part, at least, to the benumbing, may I not add *demoralizing*, effect of the habit?

I only wish the regulations were far more numerous and more stringent. I wish our railroad directors would label

certain cars, "*For the Unclean,*" and then insist on the most rigorous separation, forbidding chewer or smoker to enter any other car, under some heavy penalty. How I wish they would do this!

I have seen gentlemen (?) enter a car, take seats, and, leaving their satchel or overcoat in possession, retire to the smoking-car, lose themselves in the dense, impure clouds of some half a hundred cigars, have their smoke out, and then return to their seats, saturated from hat to boots with the sickening fumes, a besmoked, unsavory nuisance, more offensive than the whiffs from a fresh cigar. And alas! peradventure this nuisance may be a Rev., a Prof., or a D. D., and a man of refinement, too! How can such a one endure for a single minute the polluted atmosphere and companionship of the smoking-cars?

If an Arab regards spitting in his presence as an insult, even if it be outside his tent, can one conceive of the just indignation of American women when traveling in the cars? There's little use in carefully holding up one's dress and looking warily from place to place. One may as well make a covenant with her eyes and take the first seat that comes. The men chew and spit, they read and spit, they talk and spit, they laugh and spit, they breathe and spit, and some, swear and spit.

Windows may be open at right and left; but, apparently, they consider it a sin to spit out of them. Well, it *would* be a pity to sully the fair face of Nature; indeed, one might well compassionate a country drenched in such narcotic showers.

By lamplight, as by daylight, the process goes on. And what scenes do the flickering lights disclose! Men shaken out of their dignity, tumbling and rolling everyway, while some, from their horizontal positions, now spit more directly upon their neighbors. Women huddled up on the seats, starting even in their slumbers at these ever-threatening showers.

Will any one deny that this fashion is an outrage against all propriety? Ought passengers who have paid honestly for their tickets to be thus doomed to perpetual terror? Why, it is more dreadful than the sword of Damocles hanging over one's head. "If young gentlemen must smoke," said Daniel Webster, "let them take the horse-shed."

Very dark is this cloud in our horizon. In true gallantry American mankind is ahead of all the world. Could we only secure this earnestly coveted, much-prayed-for reform, it would add the one finishing touch. It would exalt this same American into the ideal gentleman. But where will the present current land him?

There is a close if hidden connection between the minor moralities of Christianity and what are regarded as major ones, and no one can violate the former without blunting his finer feelings, and becoming far more likely to infringe the latter.

Is there, then, absolutely no refuge, no quarantine by which these noxious, ever-pursuing, ever persecuting spirits of the air can be effectually shut out from the uncontaminated? So low is the tone of public sentiment on this matter that, if you express regret that a young friend is in this bondage, one sometimes breaks out upon you with the remark: "Be thankful he do n't drink. Let him smoke as much as he will, and in your parlor too, if he likes, that you may save him from the saloon." And it is said without a suspicion that this habit often leads to that very place.

All honor to the brave "New England girl" who, in uttering her protest against tobacco, declares "that there is one girl firmly resolved never to marry a man who uses tobacco, and to do what she can by prayer and works to break up this growing evil." In her own family she had so learned this evil by heart that she could not help lifting up her voice. Are there not many other American girls who will join her ranks, and thus present a fair, solid front to the invading foe?

Think of a delicate woman, who cannot bear even to sit beside a smoker or chewer, and who is unpleasantly affected by the least breath of tobacco, being yoked to one who makes use of it perpetually! The health of many a wife has been sacrificed by such a union. But has not the hus-

band sufficient love, or even common gallantry to abandon the habit he formed before marriage? *Not he!* In the scales are placed on the one hand his wife, and on the other his ugly brown idol; the latter outweighs the former.

Sure I am that, were this fearful tobacco problem fully comprehended, every true woman's principles would forbid her to condone so grave an offense—an offense which puts in jeopardy the health not only of the wrong-doer, but in a greater or less degree that of his whole family, which lowers its esthetic and moral tone, and in which are involved, little and large, discomforts and a train of miseries larger than I have time or space or ability to enumerate.—META LANDER, in *Independent.*

CURIOSITIES OF HUMAN FOOD.

MAN has been wonderfully ingenious from his infancy in the concoction of edible varieties. Apart from baked human thighs in Feejee, and boiled fingers in Sumatra, there are certain culinary fashions still extant, which must be marvelously unintelligible to a conventionalized appetite. Not that it appears strange to eat ducks' tongues in China, kangaroos' tails in Australia, or the loose covering of the elk's nose in Brunswick. Not even that it is startling to see an Esquimaux eating his daily rations, or a Yakut competing in veracity with a boa-constrictor; but who would relish a stew of red ants in Burmah, a half-hatched egg in China, monkey cutlets and parrot pies in Rio Janeiro, and bats in Malabar, or polecats and prairie wolves in North America? Yet there can be little doubt that these are unwarrantable prejudices. Dr. Shaw enjoyed lion; Dr. Darwin had a passion for puma; Dr. Brooke makes affidavit that melted bears' grease in a most refreshing potion. And how can we disbelieve, after the testimony of Hippocrates, as to the flavor of boiled dog? If squirrels are edible in the East, and rats in the West Indies; if a sloth be good on the Amazon, and elephants' paws in South Africa, why should we compassionate such races as have little beef or mutton? For we may be quite sure that, as Montesquieu affirms, there are valid reasons quite as unimpeachable for eating giraffe, alpaca, mermaid's tails, bustard and anaconda.

[Nevertheless, we prefer to stick to the old-fashioned diet of fruits and grains, though we may agree with the writer of the above that there are no valid reasons why most of the strange articles of food mentioned are not as deserving of high rank as articles of diet as beef and mutton.—*Ed.*]

Killed By Fashion.—A late prominent physician of Paris estimated that 3,000 children had died in that city, during the thirty years of his practice there, from short sleeves, short pants, and other kindred imprudences in the dressing of children. And I am fully convinced that as large a proportion are sacrificed in towns, at least in this country, from the same cause—all for a *wicked* fashion. And from careful observation, in this country and abroad, I am confident that at least as many more are carried off by improper food, and irregularity in taking it; together with poisonous candies, and other unwholesome and indigestible trash, that no child or other person should eat.

Many of these, it is true, do not die of diphtheria. But it should be remembered that all this goes to predispose those not actually killed by depraving the blood, and lessening the powers of vital resistance. And hence, when exposed to the *contagion* of diphtheria, or to putrid animal and vegetable exhalations, they are the first to take, and most liable to die of it.

Children on attaining the age of accountability, and all other persons, should take plain, nourishing and digestible food with strict regularity, and nothing between meals, or late at night. Trash, tobacco, intoxicating drinks, cosmetics, hair-dyes, dime novels, etc., should be avoided by all. And while the amount of clothing should not be in excess, care should be taken to keep the arms, legs and feet well protected, and all dress should be adapted to the season.—*Sanitarian.*

TEMPERANCE AND MISCELLANY.

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

OUR DAILY PATHS.

BY MRS. HEMANS.

Naught shall prevail against us, or disturb
Our cheerful faith, that all which we behold
Is full of blessings. *Wordsworth.*

THERE's beauty all around our paths, if but our watchful eyes
Can trace it 'midst familiar things, and through their lowly guise;
We may find it where a hedge-row showers its blossoms o'er our way,
Or a cottage window sparkles forth in the last red light of day.

We find it where a spring shines clear, beneath an aged tree,
With the fox-glove o'er the waters' glass borne downwards by the bee;
Or where a swift and sunny gleam on the birch's stem is thrown,
As a soft wind playing, parts the leaves, in copses green and lone.

We may find it in the winter boughs, as they cross the cold, blue sky,
While soft on icy pool and stream their pencilled shadows lie;
When we look upon their tracery, by the fairy frost-work bound,
Whence the flitting red-breast shakes a shower of crystals to the ground.

Yes! beauty dwells in all our paths—but sorrow, too, is there;
How oft some cloud within us dims the bright, still summer air,
When we carry our sick hearts abroad amidst the joyous things,
That through the leafy places glance on many-colored wings!

With shadows from the past we fill the happy woodland shades,
And a mournful memory of the dead is with us in the glades;
And our dream-like fancies lend the wind an echo's plaintive tone,
Of voices, and of melodies, and of silvery laughter gone.

But are we free to do e'en thus—to wander as we will—
Bearing sad visions through the grove, and o'er the breezy hill?
No! in our daily paths lie cares, that ofttimes bind us fast,
While from their narrow round, we see the golden day fleet past.

They hold us from the woodlark's haunts and violet dingles, back,
And from all the lovely sounds and gleams in the shining river's track;
They bar us from our heritage of spring-time, hope, and mirth,
And weigh our burdened spirits down with the cumbering dust of earth.

Yet should this be?—Too much, too soon, despondingly we yield!
A better lesson we are taught by the lilies of the field!
A sweeter by the birds of heaven—which tell us, in their flight,
Of One that through the desert air forever guides them right.

Shall not this knowledge calm our hearts, and bid vain conflicts cease?
Ay, when they commune with themselves in holy hours of peace;
And feel that by the lights and clouds through which our pathway lies,
By the beauty and the grief alike, we are training for the skies!

THE TRUE TEMPERANCE CODE.

BY MRS. E. E. K.

"INDEED! girls, that would only be a compromise, and not serve the true end after all."

Nina Miller, the speaker, was one of those quiet, thoughtful characters who seldom express themselves with decision, and the group of young ladies, gathered that sultry afternoon, in the shadied corner of the boarding-house piazza, wore looks of incredulity and amazement at this unexpected announcement.

The tidal wave of temperance, which within the past few years has been sweeping over our land with such beneficent results, had reached this little village, nestled so securely among the hills of Western New York, and the young ladies having become interested in the great work, were devising ways and means for engaging their influence in its favor.

A base-ball tournament was soon to be held in the vicinity, and they had determined to follow the excellent example of many other noble, Christian ladies, and serve refreshments in a tent near the grounds in a manner so attractive that all would prefer to stop with them instead of patronizing the saloons. It was the proposition that tea and coffee be added to the bill of fare, "which," said one of ladies, "will serve as a substitute for wine and beer," that had called forth Miss. Nian's remark.

"And will you tell us, Nina, why this astonishing announcement?" asked Minnie Lewis, a suggestion of satire in her tone.

"Certainly," was the quiet rejoinder. "It is because I consider them to be but a milder form of stimulant, and the habit of

their use a stepping-stone that may, and often does, lead to a desire for something stronger."

"Oh, pshaw! Nina, I do not believe tea or coffee can do any harm," answered Minnie. "Almost every body uses them, and in many places, both in this country, and in England, the temperance workers have erected coffee houses to entice the people away from the dram-shops. Why, our very best men and women use tea and coffee."

"Yes," rejoined Nina, "and not a few of them use beer and cider too; but does that prove that they are not harmful? What do you suppose people drink tea and coffee for?"

"Because they like it," said Lulu Brown.

"Because it makes them feel better," said Maggie Smith. "Mother says there is nothing that rests her so much when she is tired, as a good, strong cup of tea."

"Well, girls, did n't the Professor tell us the other day that anything which excites vital action above the normal standard, without supplying an extra amount of force to support the extra expenditure, was stimulant, and is n't that what tea and coffee do? They make one feel bright and fresh when they are really exhausted. The very fact that a person feels tired, shows that the system demands rest, that his body is worn and needs repairs, and the relief received from a cup of tea is not recuperation; instead, it only paralyzes his nerves so that they are insensible to the fatigue imposed upon them,—just what all stimulants do, only, perhaps, in a lesser degree; so I believe that the practice of tea and coffee drinking encourages habits which tend toward, and finally may result in, drunkenness; and if those who indulge in their use do not become drunkards, it is because high moral principle acting in conjunction with strong will-power enables them to resist their tendencies."

"I declare, Nina! you are about as strict a teetotaler as the young man who refused to permit his face to be bathed with bay-rum after a tonsorial operation, because he had signed the temperance pledge," said sarcastic Minnie.

"Any way, there is one thing tea is good for," said Lulu, "and that's sick-headache."

"I'm not so sure about that," remarked Bell Benton, whose father was a physician. "Papa says that tea-drinking is often the cause of the very condition which it is supposed to remedy, and ultimately aggravates the very trouble which it is used to relieve."

"How can that be?" exclaimed a chorus of voices.

"Why, sick-headache is the result of indisposition, and the tea does not remove the cause at all; it only relieves the immediate suffering by stupefying the nerves, as Nina has just now said, while the continued use of it interferes with digestion, thus continually renewing the conditions for the disease. I know this much from personal observation, that in the family where I boarded last year, the use of coffee could not be indulged in three days without giving them the sick-headache."

"But is it not true that tea and coffee help digest our food?"

"I do not think so; and if it were true, I do not believe the Creator made our stomachs so imperfect that they could not do their work without being goaded and spurred on by artificial means."

"I begin to believe that Nina is right. Any way, I think there is this much about it; that it is very hard for those addicted to the habit of using tea and coffee to do without them and not feel that something is lacking."

"That's so, Maggie, and how many are there that use them, who do not gradually increase their strength as the habit grows upon them? And we all know how true it is that the chains of habit are too small to be felt until they are too strong to be broken."

"Yes," said Belle, "and when we consider that at the present time it is estimated that no less than sixty million people are addicted to the use of coffee, and that tea is used as a beverage by not less than five hundred million, we can scarcely form a conception of their harmful results."

"Well," said Minnie with an air of disturbed serenity, "What should be the code of temperance, Nina?"

"I believe that whatever weakens our power of self-government, or makes us the slaves of habit, whatever encourages abnormal or unnatural tastes, exposes us to danger; and I believe that all we either eat or drink more than is demanded for a healthy sustenance, is intemperate. You surely would not consider the act of drinking as the crime in drunkenness? It is the habit and the result, and is n't the sin just the same in character, although of a different degree, whether one drinks a mild or a strong stimulant? It seems to me that the person who has begun to educate

a morbid appetite by the use of these drinks, is already in the path of intemperance, and has no sure guaranty that he shall not advance in the high-way he has entered to its more ruinous and fatal forms."

THE FAREWELL LESSON.

My fairest child, I have no song to give you;
No lark could pipe to skies so dull and gray;
Yet, ere we part, one lesson I can leave you
For every day.

Be good, sweet maid, and let who will be clever;
Do noble things, not dream them all day long;
And so make life, death and that vast forever,
One grand, sweet song.—*Charles Kingsley.*

TRUE MANLINESS.

Every young man considers it high praise to be called a "manly fellow;" and yet, how many false ideas there are of manliness!

Physical strength is not the test. Samson was endowed with tremendous bodily powers. He was a grand specimen of humanity. See him rending the lion as he would a kid, or carrying away the gates of Gaza! But he was a weak creature after all, unable to resist the wiles of an artful woman.

Great intellect is not the test of true manhood. Some of the most intellectual men who have ever lived were not manly. Lord Francis Bacon was a prodigy of intellect,—the Sciences sat at his feet extolling him as their benefactor; yet we see him led down Tower Hill a prisoner for swindling!

Fast living is not manliness. Some men think that to strut, and puff, and swear is to be manly. To some, the essentials of manliness are to "toss off their glass like a man," "spend money freely like a man," "smoke like a man," "drive a fast horse like a man," forgetting that virtue is true manliness. Temperance, chastity, truthfulness, fortitude, and benevolence are the characteristics and essentials of manliness.

There is no manliness in sin of any kind. Vice is essentially unmanly. Just so far as evil habits are connected with the so-called manly sports, degradation follows.

There may be manliness in a rowing match, a foot race, game of cricket or ball, or skating, if disconnected with gambling; but prize-fighting and dog-fighting are not manly sports. I express my own opinion in saying that I do not consider horse-racing a manly amusement. Of the two, I think prize-fighting the more honorable. If two men choose to train themselves to endurance, patience and skill, and then meet of their own free will to batter themselves to pieces, I consider it is more manly than to drive a horse, with whip and spur, till his reeking sides are covered with foam, and dripping with blood and sweat, his nostrils distended and bleeding, his whole frame quivering with pain and exhaustion, for the sake of sport, and transferring cash from the pocket of one man to that of another without an equivalent.

To be manly is to be honest, generous, brave, noble, and pure in speech and life. The highest form of manliness is godliness. Some one has said, "An honest man is the noblest work of God." If we mean honesty in the common acceptation of the word, it is not true; a merely honest man is not the noblest work of God, but the man who is honest toward God and toward his fellow-man,—in short, a Christian man, is the noblest work of God.—J. B. Gough, in *Sunlight and Shadow.*

A SAILOR'S STORY ABOUT ALCOHOL.

I've been fourteen years a sailor, and I've found that in all parts of the world I could get along as well without alcoholic liquors as with them, and better too.

Some years ago, when we lay in Jamaica, several of us were sick with the fever, and among the rest, the second mate. The doctor had been giving him brandy to keep him up, but I thought it was a queer kind of "keeping up." Why, you see it stands to reason, that if you heap fuel on the fire, it will burn the faster, and putting the brandy to a fever is just the same kind of a thing. Brandy is more than half alcohol, you know.

Well, the doctor gave him up, and I was set to watch with him. No medicine was left, for it was of no use. Nothing would help him, and I had my directions what to do with the body when he was dead. Toward midnight he asked for water. I got him the coolest I could find, and all he wanted, and if you'll believe me, in less than three hours he drank three gallons. The sweat rolled off from him like rain. Then he sank off, and I thought sure he was gone; but he was sleeping, and as sweetly as a child. In the morning, when

the doctor came, he asked what time the mate died.

"Won't you go in and look at him?" I said.

He went in and took the mate's hand. "Why," said he, "the man is not dead! He's alive and doing well! What have you been giving him?"

"Water, simply water, and all he wanted of it!" said I.

I don't know as the doctor learned any thing from that, but I did, and now no doctor puts alcohol down me or any of my folks, for a fever, I can tell you! I am a plain, unlettered man, but I know too much to let any doctor burn me up with alcohol.—*Selected.*

GEORGE STEPHENSON.

THE centenary of the birth of George Stephenson, the founder of the railway system in Great Britain, was celebrated in England, June 9. The *Scientific American* gives the following interesting sketch of his life:—

He was born at Wylam, eight miles from Newcastle-on-Tyne. His father was fireman at the near by colliery engine house. His mother was the daughter of a dyer. At eight years of age, Stephenson herded cattle for a neighbor for a shilling a week, part of his duty being to shut the gates of the tramway from the pit, when the wagons passed, to keep the cows from straying. One of his early amusements was the modeling of an engine and winding machine like the one his father tended. At fourteen he was made assistant fireman, earning one shilling a day. Three years later he jumped his father's position, and became engine man. At this time he could neither read nor write, but he knew his engine, and critically studied its construction and working. About this period, an old Scotch school-master helped him to overcome the mystery of letters. At twenty-one he married, and after the birth of his son Robert, a year later, he removed to West Moor colliery, Killingworth, where his wife soon died. For distraction in his bereavement, he went to Montrose, Scotland, to superintend the working of a Boulton and Watts engine. He found the engine out of gear and the works choked, but soon had matters straightened and the machinery in proper working order. A year later his father was blinded by an accident; he was drawn in the militia for the Continental wars, and his prospects looked dark enough. To relieve his father's destitution, and purchase exemption from army service, used up his scanty savings, and he seriously contemplated emigration as his only chance for success in life.

The question of steam transit was becoming prominent during the early years of the century, and naturally enlisted the attention of Stephenson. The early locomotive makers contemplated engines for hauling wagons over common roads only; but Stephenson—thanks, no doubt, to his early observation of the advantages of rails, while gate closer and cattle herder—foresaw that the road of the future must be a railroad, and planned his first locomotive accordingly.

In the fall of 1822, he constructed for the Hetton Colliery company a short railroad, upon which, on the 18th of November, his locomotive hauled a load of sixty-four tons at the rate of four miles an hour. This demonstration of the feasibility of railways led at once to the Darlington and Stockton railway project, which won for Stephenson in Parliament and elsewhere, the reputation of being a maniac leader of lunatics and fools. In spite of opposition, the road was opened for traffic September 27, 1825, with Stephenson as engine driver.

The subsequent battle of the railway for leave to be, and of the locomotive for toleration after the railway was grudgingly accepted, is familiar history. No man ever fought a grander fight against popular and professional prejudice and ignorance, or developed in the fight a manlier character. His mental capacity rose with every great emergency, while his native shrewdness and solid sense ever kept him from undertaking the really impossible or impracticable, however extravagant or absurd his projects may have seemed to men of smaller capacity. What he knew, he knew by personal mastery, not by hearsay; and without presumption or arrogance he was able by sterling intellectual power and suresightedness, backed by the hardest of hard work, to demonstrate the correctness of his ideas, and to accomplish undertakings which involved the severest problems of railway engineering.

The moral of his life is clear. There is no condition in life, however hard or humble, which may not furnish the stepping-stones to the most successful career. Had Stephenson been surrounded by wealth and educational privileges in early life, he

might still have become a great man; but lacking his special experience as tramway gate tender and engine tender, dreary and discouraging as it may have seemed at the time, it is hardly possible that he would ever have been the pioneer of one of the most important and influential social and industrial movements of the race.

Lo, the lillies of the field,
How their leaves instruction yield!
Hark to nature's lesson, given
By the blessed birds of heaven;
Every bush and tufted tree
Warble sweet philosophy;
"Mortal, fly from doubt and sorrow;
God provideth for the morrow!"

NO TIME!

THIS is a woman's plea, her never-failing, all-sufficient excuse. There seems never to be time enough to do what she ought to do, whether it is to read history or make calls. Generally there is time enough to do those things that habit or inclination have made seemingly necessary; but for the hundred out-of-routine duties that crowd upon her, or the many pleasant outside means of self-cultivation, there seems never to be time.

The day can never be more than twenty-four hours, ten of which, if the health is preserved, must be spent in eating and sleeping. To make the remaining fourteen hours go as far as possible, work must be thoroughly sifted and planned. The woman who wants to do something beside visiting and fancy work, must do without her six week's work on embroidered pillow shams, and cut short her "dear five hundred" friends. Both she and the "five hundred" will be better for it.

God's sunshine was never intended to be wasted in visiting; day is for work, and recreation should follow, not usurp.

She, who thinks a healthy body and a cultivated mind more necessary for herself as a wife and mother than stitch-covered lambrequins and elaborate salads and desserts that cook can't make, must sternly forswear lambrequins and dessert.

The work that must be done, must be done; there is no gainsaying that fact.

But what is necessary work? This is the question. Here is the loop-hole, the only opening through which the hurried woman can creep from the iron barred prison of tyrannical routine, into the freer air of congenial self-selected work. From being driven, she must drive. She must say sternly, "this I will, this I will not do." But the curtailment should fall upon the body, and not upon the soul.

We must eat; we must have clothes to wear, and if upon the house-mother falls the duty of providing and doing all, she should heroically preach the new gospel of simple food and more books, of pretty fabrics and less sewing, of self-helpful boys as well as girls, of less scrubbing, and less sweeping and more lectures, and more thought; in short, the art of making, eating, and drinking, the houses we live in, and clothes we wear, *accessories* of life, and not life itself. Let us get up beyond ruffled skirts, and fancy shoe-bags, and dinners that cost us pain to make and pain to eat. Let us give the energy and force it takes to win a woman's envy of a pretty costume, to the charity that the poor of the world need more and more each year.—*Woman at Work.*

ASHAMED OF HIS CIGARS.

IN giving his experiences as a public speaker, Mr. Gough, the renowned temperance lecturer, relates an incident in which he encountered an embarrassment which he could not overcome:—

"It was my own fault, and proved a sharp lesson to me.

"I was engaged to address a large number of children in the afternoon, the meeting to be held on the lawn back of the Baptist church in Providence, R. I. In the forenoon, a friend met me and said,—

"'I have some first-rate cigars. Will you have a few?'

"'No, I thank you.'

"'Do take half a dozen.'

"'I have nowhere to put them.'

"'You can put half a dozen in your pocket.'

"I wore a cap in those days, and I put the cigars into it, and at the appointed time I went to the meeting. I ascended the platform, and faced an audience of more than two thousand children. As it was out of doors, I kept my cap on for fear of taking cold, and I forgot all about the cigars. Toward the close of my speech I became more in earnest, and, after warning the boys against bad company, bad habits, and the saloons, I said,—

"'Now, boys, let us give three rousing cheers for temperance and for cold water. Now, then, three cheers. Hurrah!'

"And taking off my cap, I waved it most vigorously, when *away went the cigars* right into the midst of the audience.

"The remaining cheers were very faint, and were nearly drowned in the laughter of the crowd. I was mortified and ashamed, and should have been relieved could I have sunk through the platform out of sight. My feelings were still more aggravated by a boy coming up to the steps of the platform with one of those dreadful cigars, saying, 'Here's one of your cigars, Mr. Gough.'"

Mr. Gough has long since discarded the use of tobacco, and would doubtless now consider it extremely inconsistent to warn others against the power of evil habits, while constantly indulging his own appetite in that most foolish practice—smoking.

THE UMBRELLA.

THE word "umbrella" is a diminutive from the Latin umbra, and signifies a little shade. It is said to have been brought into English from the Italian *ombrella*, which has the same meaning.

The umbrella, both as a protection against the sun, and an emblem of high rank, is of very ancient origin. The earliest Egyptian and Ninevite sculptors have frequent representations of it, yet only in connection with royalty. The Chinese adopted it at a very early period, and were the only people who did not confine it to princes of the blood royal. A man, however, who carried an umbrella was a man of wealth, as the common people had broad hats which, with their cloaks of rushes, protected them from both sun and rain. The use of the umbrella is universal in India. Theebau, King of Burmah, has for one of his titles, "Lord of the Twenty-four Umbrellas," those of the King being made of white silk. No other person is allowed to carry a white one. The Hindoo god, Vishnu, is represented in sculpture as visiting the infernal regions with an umbrella spread over his head.

In less ancient times, it was used in Rome only by females and effeminate men. In the Middle Ages, its use among women became less common and it was an emblem of rank in the church, cardinals and bishops having one borne over their heads in procession. All large churches and cathedrals owned one for this purpose.

The umbrella was probably introduced into England about the fourteenth century, an old manuscript having a drawing of an Anglo-Saxon gentleman walking out, with a servant behind him carrying an umbrella over his head with a handle which sloped backward.

Jonas Hanway, an eccentric traveler and philanthropist, is believed to be the first man of note who carried one in the street, and he encountered a great deal of ridicule for doing so. At this time umbrellas were made of silk, oiled muslin, or oiled paper, and were very heavy. At first they were only kept in the halls of genteel houses, for holding over persons as they stepped into their carriages.

The umbrella, in the general construction of its frame, has undergone very few changes in thousands of years; but the materials have constantly changed. In the first Chinese models, the frames were composed of bamboo and light, strong woods; and in Europe they were first made of rattan, then of wood—white oak being generally used—and afterward for many years of whalebone.

Though Jonas Hanway, the philanthropist, did many a Christian deed in his life, he is not remembered so much for his benevolence as for his umbrella. He was the first man in England who ventured to brave public opinion by carrying one of those necessary articles. Having expended what property he had in charitable schemes, Lord Bute, the premier, gave him office as a commissioner of the navy, a situation which he held for twenty years. He was an indefatigable worker in the cause of philanthropy, and several of the most worthy charitable institutions of modern times were originated by him. He instituted the Marine Society, he established the Magdalene Charity, he was the father of Sunday Schools, and the friend of the chimney-sweep. No public calamity occurred that he did not try to alleviate. But it is the shade of his umbrella that has kept his memory green for posterity.—*Selected.*

Receipt for a Happy Home.—There are six things requisite for a happy home. Integrity must be the architect, and Tidiness the upholsterer; it must be warmed by Affection, and lighted up with Cheerfulness; and Industry must be the ventilator, renewing the atmosphere and bringing in fresh salubrity every day; while over all, depends a protecting canopy, and nothing will suffice for this but the blessing of God.—*Gospel Messenger.*

Moral Courage.—Men do not dare to seek truth without fear and trepidation. "What will the world say? What will be said if we advocate this opinion? How will it affect my individual welfare?" These are the questions of slaves. Men, speaking and thinking thus, are counterfeit men, not the men for the present day or the present crisis. The waverers and the lookers-back are the drones, and are unworthy of a seat in the temple of science. Society is to be pressed on. The masses are to be enlightened. The moral philosopher should scorn the opinion of the million if he is conscious of the truth of his own. He is to be influenced by conscientiousness and benevolence, and when he discovers a new truth, he is to advocate it because it is true, because it must produce good, because it will tend to increase the happiness of his race. Truth must be favorable to virtue.—*Elliotson.*

What the Ancients Did.—The Anglo-Saxons went no farther than to order silver nails to be placed on the side of drinking cups, so that each might know the proper measure. And it is said that this was done by King Edgar, after noticing the drunken habits of the Danes.

Lycurgus, of Thrace, went to the root of the matter by ordering the vines to be cut down. And his conduct was imitated in 704 by Turbulus of Bulgaria. The Suevi prohibited wine to be imported; and the Spartans tried to turn the vice into contempt by systematically making their slaves drunk once a year, to show their children how foolish and contemptible men looked in that state. Drunkenness was deemed much more vicious in some classes of persons than in others. The ancient Indians held it lawful to kill a king when he was drunk. The Athenians made it a capital offense for a magistrate to be drunk, and Charlemagne imitated this by a law that judges on the bench and pleaders should transact their business fasting. The Carthagenians prohibited magistrates, governors, soldiers, and servants from drinking. The Scots, in the second century, made it a capital offense for magistrates to be drunk. And Constantine II., of Scotland, in 801 extended a like punishment to young people. Again, some laws have absolutely prohibited wine from being drunk by women. The Massilians so decreed. The Romans did the same, and extended the prohibition to young men under 30 or 45; and the husband and the wife's relations could scourge the wife for offending, and the husband himself might scourge her to death.

The Mangosteen.—I must not omit the tree which bears the famous fruit of the East known as the mangosteen. It is not tall, nor is it particularly handsome. It is only some twenty feet in height, and has spreading branches instead of the single tufts that adorn the trees that I have just described. But the fruit is the prince of the tree-fruits of the world—the apple, the peach, the orange, the pomegranate, none of them can compare with it, and even if you combine all these fruits you are only beginning to approach it. Externally it has the appearance of a small apple that has been partially baked or has become very brown in the sun. On cutting it, you find an external husk harder than the rind of an orange, and three times as thick. When you have penetrated this husk, you find a mass of snow-white pulp, and you need no instructor to tell you that this is the edible portion of the mangosteen. It melts in your mouth like an over-ripe peach, or like snow on the surface of a river. Its flavor is a combination of sweetness and slight acidity, which you can no more describe than you can tell how a violet smells or a canary sings. I think I have tasted nearly every fruit that grows on the globe, and unhesitatingly I award the prize of excellence to the mangosteen. At this distance of time and place, my lips moisten when I think of the mangosteens that solaced the heat of Java, and made the life of the island more agreeable than it would otherwise have been. If this fruit grew in the garden of Eden, I can well understand why Adam and Eve wept at their expulsion. Perhaps it was the mangosteen which the serpent offered for the temptation of our first mother; if so, it is easy to understand why she fell from grace.—*Correspondence Philadelphia Times.*

Nicknames of the Inhabitants of the American States.—The people of the different States are often spoken of under various cant terms, as follows:—

Alabama, Lizards; Arkansas, Toothpicks and Thugs; California, Gold Hunters; Colorado, Rovers; Connecticut, Wooden Nutmegs; Delaware, Muskrats; Florida, Fly up the Creeks; Georgia, Buzzards;

Illinois, Suckers; Indiana, Hoosiers; Iowa, Hawkeyes; Kansas, Jayhawkers; Kentucky, Corn Crackers; Louisiana, Creoles; Maine, Foxes; Maryland, Craw Thumpers; Michigan, Wolverines; Minnesota, Gophers; Mississippi, Tadpoles; Missouri, Pukes; Nebraska, Bug Eaters; Nevada, Sage Hens; New Hampshire, Granite Boys; New Jersey, Blues or Clam Catchers; New York, Knickerbockers; North Carolina, Tar Boilers and Tuckoes; Ohio, Buckeyes; Oregon, Webfeet and Hard Cases; Pennsylvania, Pennanites and Leatherheads; Rhode Island, Gun Flints; South Carolina, Weasels; Tennessee, Whelps; Texas, Beef Heads; Vermont, Green Mountain Boys; Virginia, Beadles; Wisconsin, Badgers.

—There is food for reflection in this saying of somebody's:—

"Our wild Government land costs one dollar and twenty-five cents an acre, and good whiskey two dollars a bottle. How many men die landless, who during their lives have swallowed whole townships, trees and all!"

—The students of Cornell University have, most of them, abandoned the habit of smoking.

POPULAR SCIENCE.

—The United States has an area of coal-fields of one hundred and ninety thousand square miles.

—Although it is but little over a half century since the first railroad worked by steam was opened, it is estimated that the existing lines on both hemispheres would reach eight times around the globe, and their aggregate cost is $16,000,000,000.

—Few people are aware that all the nickle from which our smaller coins are made, comes from a single mine in Lancaster Co., Pa. It is the only one in the country now being worked. The length of the lode is nearly three thousand feet. It yields from four to six hundred tons a month, and employs a force of one hundred and seventy-five men.

—The art of sub-marine photography has been perfected so greatly that views have been taken near Glasgow at the depth of sixty feet beneath the surface. One of the views taken in the bay near the city, shows distinctly a sandy bottom, with a large number of boulders covered with seaweed, and an old anchor, also three mooring cables belonging to small yachts.

The South Pole.—Again there is a frenzy for Antarctic exploration, of which there has been little since 1842. The rage for visiting inaccessible regions, where there are no human beings and no possible human interests, seems to us quite a waste of energy. We know enough of the southern pole to know that more knowledge would not be worth the trouble of attaining; we know that the southern hemisphere winter is longer than the northern winter; we know that the north pole is approachable from all directions much nearer than the south pole; we know that the south pole is buried under a vast ice-field two or three miles thick and 2,500 miles in diameter,—so huge and heavy that it has shifted the earth's center of gravity, caused the oceans to flow over the southern half of the planet, and exposed to view and habitation the land of the northern half; we know that in the precession of the equinoxes—12,500 years—this great ice-field will melt, evaporate, and float through the sky to congeal at the north pole, and then the northern hemisphere will gradually sink under the sea till the salt water stands two hundred feet above New York city, and the released southern hemisphere will slowly and slily tip out of the oceans, revealing continents and islands where new nations will be born, and great civilizations will take root and blossom. Knowing all this, we have ample warning. When the time of the cataclysm draws nigh, we can hedge by selling off our city real estate, dispose of our houses on a long lease (money in advance), and go to Australia, bidding a tender farewell to the doomed North. It is sad to think that, if the prognostications of science are trustworthy, the vigorous North is to be submerged, and that, in a little while, merely some twelve thousand years, Fulton Market will have joined the majestic ruins of the world, and sharks will be disporting above Wall street, and codfish moving in select circles along Fifth avenue, with only Trinity church steeple and the tall tower peering above the liquid waste. It must be a heartless wretch who desires to know any more about a paleocrystic latitude that is responsible for bringing upon us so much woe.—*Andrew's American Queen.*

GOOD HEALTH.

BATTLE CREEK, MICH., JULY, 1881.

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

DRESS REEORM CONVENTION AT BERLIN.

THE following is the newspaper account of a meeting recently held at Berlin in the interest of a reform of the present mode of women's dress :—

"A meeting was held recently at Berlin with the view of forming a league for the abolition of the present female dress. There were present twenty-five women.

"The lady who presided explained that the movement was to abolish all unhealthy and inconvenient articles of woman's dress, and to replace them by a 'dualistic form of attire for the lower as well as the upper limbs.'

"The supporters of the movement desired that no more should be heard of long skirts and such fashionable frippery. They wanted to wear trousers, because in them alone they had a form of dress worthy of the human race.

"Only one person spoke in defense of the old costume, on the ground that flowing robes are more graceful than tight-fitting garments ; but her voice was drowned in a storm of opposition, and the anti-petticoat resolution was carried almost unanimously."

While it is too evident to need even a statement of the fact, that a reform in female dress is greatly needed, being demanded alike for the promotion of good health and good morals, and required for the satisfaction of good taste and good sense,—we have no hope that any attempt of the sort referred to above, if the telegraphic report may be relied upon as correct, will ever accomplish the desired result. The insuperable obstacle to the success of any such movement, is the innate dread a woman possesses of being thought to wish to look like a man. While there is no important physiological objection against the adoption of a masculine dress by women, and while such a dress would obviate the most objectionable features of fashionable female attire, custom has for so many ages maintained certain distinctions between male and female dress, that it has now become impossible to ignore them as has been attempted by various dress reformers. The great majority of modest, refined women can never be induced to adopt a style of dress which exposes them to the charge of seeking "to look like a man." Fortunately, this is not necessary in order to accomplish what is really essential to a most commendable and satisfactory reform in dress. The great essentials of such a reform, are, in the words of our esteemed contemporary the *Christian Woman*, in commenting on the above, "taking the weight from the vital organs and placing it on the shoulders, and relieving those organs from pressure ; the clipping of trains ; the lightening up of skirts ; the tearing of trimming and flounces off, and plainer and more economical dressing."

Such a reform every woman can make, and that without exciting either opposition or ridicule, or even attracting attention, except by improved looks arising from the glow of health in the countenance, red cheeks, ruddy lips, elastic step, and exuberant spirits.

Fashion is of late becoming quite favorable to reform, and it is even rumored that a waist of healthy size is really coming to be considered elegant and graceful. However, fashion is such a fickle goddess

that no reliance can be placed upon her reforms. At the same time that she favors enlarged breathing capacity, she presses the feet into torturingly minute proportions, pinches the toes until corns and bunions multiply to the entire satisfaction of itinerant chiropodists, and erects a pedestal under the hollow of the foot in

THE PERIHELION PROPHETS "IN PERIHELION."

THE year 1881 is the most remarkable of any on record, on account of the great number of astronomical epochs which occur in it. Prof. Newcomb, of the U. S. Naval Observatory, asserts that within

place of a heel, so that graceful walking in a fashionable shoe is utterly impossible, and so tiresome and painful as to be productive of numerous serious and sometimes incurable ailments, involving every organ in the body, from the crown of the head to the soles of the feet.

—Some one has said, Leisure is a beautiful garment, but it will not do for constant wear.

this year there have been, or will be, seven planets in perihelion, and one hundred and twenty-seven conjunctions, more than fifty of which occur in that portion of the heavens known as the sign Taurus. For some years, this period has been looked forward to with much interest by astronomers, and has been made the basis for any amount of lugubrious predictions by modern astrologers, who, lacking the astronomical knowledge, and the keen fore-

sight of their predecessors of olden time, still cling to the long-ago exploded superstitions respecting the malign influence of certain groups of stars, or of certain planets, and the benign influence of others. Another class of evil prognosticators claim to find in the supposed disturbance of planetary attractions, magnetism, electricity, or what not, sufficient cause for a general catastrophy to the health and happiness of the whole race.

From year to year for several years back, these woful prognosticators have been assuring us that the summers were hotter than ever before, and the severity of the winters unheard of, and that the next season would be more unusual still in its extremes. The pertinacity with which our perihelion prophets have clung to their theory, notwithstanding the fact that their predictions have in every case proved false thus far, both the plague and the yellow fever having disappeared, instead of devastating the globe, as predicted, and their sturdy support of their hobby, notwithstanding their disappointments, affords an example of perseverance well worthy of a better cause.

On the 19th of June, the climax of perihelion virulence was reached, and then, if ever, the malign influence of these astronomical disturbers of mundane peace should have been felt; but the momentous day passed without a single spasm of volcanic energy, nor a ripple of pestilential waves. The position of the planets on this interesting occasion, is represented in the accompanying diagram. The great planets, Neptune, Jupiter, and Saturn, as well as Venus, Mars, and Mercury, were at that time all on one side of the sun at once, while the earth was on the other, and all nearly in line. The planets being either in or near their perihelion, also, occasioned at this time the greatest disturbance of the earth's attractions that could possibly occur. Then, if ever, should we have experienced those terrible and catastrophic perturbations so confidently predicted by the perihelionists. But old earth seems to have outridden the storm without a quiver or a strain, and triumphantly sails on through the great etherial sea without the occurrence of the slightest disturbance of any kind, except the utter discomfiture of the perihelion alarmists, who will now probably go to work to hunt up a new volcano which is about to explode with unprecedented violence, or a fugitive comet which threatens to insult Mother Earth with a saucy and cataclysmic flip of her gaseous tail. Possibly we may have a little rest from these wild and moonshiny hypotheses of ruin, lodged in the mythy mazes of a perihelion, or attached to the tail of a wandering star.

INFANTILE DYSPEPSIA.

Symptoms. — Vomiting; constipation; diarrhea; green or clay-colored stools; bowel discharges sour or feted; appearance of curds in the bowel discharges; loss of flesh; irritability; moaning cry; capricious appetite; feverishness; symptoms of worms.

Disorders of digestion constitute a very large share of the causes of illness in children. A careful study of the causes of death among children shows that derangement of digestion of various kinds, either directly or indirectly, are the cause of by far the greater share of deaths occurring in the first years of life. Vomiting is the most common symptom of indigestion. When the matters vomited are very sour, the child is suffering with acidity of the stomach, which may be the result of overeating or of the use of sugar or starchy food. Green, offensive bowel discharges indicate decomposition of the contents of the intestines in consequence of imperfect digestion. The green discharges are generally preceded by discharges in which lumps of curd are seen, indicating that digestion is imperfectly performed. After awhile, an irritation of the intestinal canal arises from the contact of hard, undigested curds which should have been digested in the stomach, and the discharges become more offensive in character, and are likely to contain considerable mucus from catarrh of the bowels. Clay-colored stools indi-

cate an inactive condition of the liver, or an obstruction of the bile ducts, probably in consequence of the extension of the intestinal catarrh into the bile ducts. When the stools continue greenish, sour or fetid, sometimes the child shows marked symptoms of wasting, becoming thin and wrinkled,—the countenance wearing an old look,—weak, peevish and restless. In many cases, convulsions come on in consequence of the weakened state of the child, in one of which the child dies. In other cases, the child dies from exhaustion. When vomiting is the principal symptom, the difficulty seems to increase until the little sufferer is unable to retain anything upon the stomach.

CAUSES.

The principal causes of derangement of the digestion in children are improper food, too frequent feeding, overfeeding, and the use of nursing-bottles which have not been properly cleansed. For directions with reference to feeding, see the article in this number on "Feeding and Care of Infants." Mental excitement, as care, anxiety, and particularly anger, on the part of the mother, is a frequent cause of indigestion in nursing infants. Menstruation, pregnancy, sexual excess, also exert a pernicious influence upon the infant through the milk. The ill health of the mother is a frequent cause of laying the foundation, during the nursing period, of constitutional weakness in the child, as well as occasioning immediate disorders of nutrition. The practice that many mothers indulge in, of feeding the child every time it cries, is a most pernicious one, but we will not dwell upon this point. Nursing-bottles, especially those with long tubes, are responsible annually for a large number of deaths among children. It is so difficult to keep bottles perfectly clean, as milk rapidly undergoes decomposition when warm, that probably the nursing-bottle is not free from danger in one case out of twenty in which it is used. A slight degree of sourness in a bottle or tube will communicate fermentation to the fresh milk taken by the child, so that the food will very soon sour and decompose in the stomach, producing all the results of indigestion or dyspepsia. The use of milk from unhealthy cows, from farrow cows, or that which has been allowed to slightly "change" before using, is very sure to disturb the sensitive digestive organs of the infant.

TREATMENT.

The child should be fed at regular intervals, the length of which should be determined by its age. It should be fed a proper quantity, and at proper times. The habit of feeding children as frequently during the night as during the day, is a mistaken and injurious one.

When the child shows symptoms of indigestion, careful inquiry should be made respecting the nature of its food, the manner of feeding, etc. If the cause is ascertained to be in the mother, either a healthy wet nurse, whose child is about the same age as that of the patient, should be employed, or, when this cannot be done, as is often the case, cows' milk should be used. The milk should be taken as fresh as possible. It ought not to be more than six or eight hours old, when fresher can be obtained. Attention should also be given to the length of time since the cow has calved. The milk of cows, being richer in caseine and in fat than human milk, should be diluted with pure water, or, as we prefer, with barley water, or thin oatmeal gruel, well boiled, and strained through a coarse cloth. For a very young child, milk should be diluted one-half. As a child grows older, and its digestive powers increase in strength, the quantity of water may be diminished.

In cases in which there is much acidity, and the discharges from the bowels are very fetid in character, lime-water may often be used with advantage, one part lime-water being added to three or four parts of milk. In some cases it is sufficient to give the infant one or two teaspoonfuls of lime-water in double the quantity of milk, after other food has been taken. In severe cases in which the digestive organs of the child seem to be unable to digest milk in any form, strong beef tea, white of egg dissolved in water,

barley-water, or thin oatmeal gruel may be employed, either separately or combined. We have succeeded in cases which seemed utterly hopeless, in restoring children by beginning with egg water, made by dissolving the white of an egg in a glass of tepid water, and gradually adding a little milk, oatmeal gruel, beef tea, or other food, as the child became able to bear it. In many cases, it is necessary to give food in very small quantities, sometimes not more than a tablespoonful or two at a time, and at intervals of an hour or two. When there is evidence that the nursing-bottle is at fault, and the evidence may be considered good whenever the nursing-bottle is employed, the bottle should be discarded at once, and the child should be fed with a spoon. Nursing-bottles with long tubes should be avoided as in the highest degree dangerous. We have never yet found one which was not in a condition unfit for use. In extreme cases, in which the stomach rejects food altogether, it should be allowed to rest for a time, the child being nourished in the meantime by means of nutritive enemata of beef tea, egg and milk, and other preparations suitable for such use.

LAWS AGAINST TOBACCO USING.

ALMOST from the very first introduction of the "filthy weed" among human beings, its use has been opposed by rigorous laws. Among the earliest legislation against tobacco in this country, were the Blue Laws of Connecticut, in force nearly two hundred and fifty years ago. We quote the paragraphs of this ancient code relating to tobacco as follows:—

TOBACKO.

"Fforasmuch as it is observed that many abuses are crept in, and committed, by frequent taking of tobacko,

"*It is ordered by the authority of this Courte,* That no person under the age of twenty-one years, nor any other that hath not already accustomed himselfe to the use thereof, shall take any tobacko, untill hee hath brought a certificate under the hands of some who are approved for knowledge and skill in phisick, that it is usefull for him, and allso, that hee hath received a lycense from the courte, for the same.—And for the regulating of those, who either by theire former taking it, have, to theire owne apprehensions, made it necessary to them, or uppon due advice, are pursuaded to the use thereof.

"*It is ordered,* That no man within this colonye, after the publication hereof, shall take any tobacko, publiquely, in the streett, highwayes, or any barne yardes, or uppon training dayes, in any open places, under the penalty of six-pence for each offence against this order, in any of the perticulars thereof, to bee paid without gainesaying, uppon conviction, by the testimony of one witness, that is without just exception, before any one magistrate. And the constables in the severall townes, are required to make presentment to each perticular courte, of such as they doe understand, and can evict to bee trangressors of this order."

A similar law existed in New York City when it was known as the New Netherlands, from its resemblance to the low country from which came its early Dutch settlers. Boston, also, has still upon its statute books a law of like import; and we have been informed that only a few years ago, a man was arrested and fined for smoking on the public streets.

These laws against tobacco have, unfortunately become almost wholly obsolete in modern times. A few years ago, however, the French nation discovered that its youth were being destroyed, mentally and physically by their devotion to the baneful weed, and enacted laws prohibiting its use by young boys.

More recently, a similar law has been enacted in one of the Swiss Cantons. And we have just learned that the following law has been lately passed by the city authorities of Santa Cruz, California:—

"Every person who sells or gives to another, under the age of sixteen years, any cigarette, cigar, or tobacco, is guilty of a misdemeanor, and shall be punished by a fine not exceeding $100, or imprisonment not to exceed 30 days. Provided, that nothing in this ordinance shall be deemed to apply to parents of such children, or to guardians of their wards.

"Every person under the age of sixteen years, who in any street, lane, alley, plaza, or place open to the public, or upon any private premises, without the consent of

the owner or person in possession thereof, smokes any cigarette, cigar, or pipe, or tobacco in any manner whatsoever, is guilty of a misdemeanor, and shall be punished by a fine of not more than $50, or imprisonment of not more than fifteen days."

We believe in prohibitory laws against both liquor and tobacco. It is no infringement of personal rights and liberties to restrain a person from doing himself harm. If a man does not know enough to protect himself from himself, he should be protected by the arm of the law. A further consideration is the fact that a man cannot use either tobacco or liquor without doing others harm as well as himself. A smoker makes every person in his company inhale the vile fumes of the weed, which Charles Lamb well designates as

> "Stinking'st of the stinking kind,
> Filth of the mouth, and foe of the mind."

A chewer of tobacco may well be classed among the "unclean creatures," the mere touch of which contaminates.

We shall watch with interest the result of the experiment made by the city of Santa Cruz, which seems to have taken the lead in this country in the revival of anti-tobacco laws, and hope the worthy example will be imitated by other of our western cities; we have no hope of seeing such manifestation of enterprise on the part of any of our eastern cities, most of which have become so thoroughly narcotized as to be unable to appreciate any necessity for action in a matter which concerns only life, health, purity, and happiness.

RUSSIAN REMEDY FOR DYSPEPSIA.

Dyspepsia is by no means so common in Russia, as in this country, but still it is not an uncommon malady there, as the Russian peasant is more abstemious than the average American, only because of his inability to obtain harmful luxuries to the same extent. Like most dyspeptics in other parts of the world, the Muscovite dyspeptic blames everything and everybody for his troubles but himself. The relation of diet to stomach disorders seems to have no influence upon the treatment of this class of maladies in the land of the Czar. An attack of indigestion is supposed to be due to the malign presence of a snake or some other reptile in the patient's stomach, and as it is generally supposed that the snake is fond of raspberries, the patient is made to inhale the fumes of raspberries burned upon hot stones. If the snake does not make its appearance, while the patient bends over the scorching berries with widely distended mouth, various charms and superstitious rites are resorted to, and if the patient after a time feels better, the snake is supposed to have escaped from its human domicile, and glided away unobserved.

Many persons will laugh at this absurd mode of treatment, while at the same time resorting to the use of liver or stomach pads, and other equally inefficient remedies. There is probably no disease in which a little common-sense will do so much toward effecting a cure, and yet in which so little sound sense is employed in treatment, as in this.

Not a Good Disinfectant.—We take this occasion to correct an error which has for a long time been current in popular journals and newspapers, and is embodied in the following paragraph:—

"Housekeepers are often greatly troubled and perplexed by mildew from damp closets, and from rust. By putting an earthen bowl or a deep plate full of quicklime into the closet, the lime will absorb the dampness, and also sweeten and disinfect the place. Rats, mice, and many bugs that are apt to congregate in damp places, have a dislike to lime. As often as the lime becomes slaked, throw it on the compost heap if in the country, or into the ash barrel if in the city."

Lime is not a disinfectant, neither are its absorbent qualities sufficient to enable it to make a damp closet or cellar dry and wholesome. Its use to disinfect privy vaults and cesspools, is not only useless, but probably in some degree harmful, as it causes some of the gases of decomposition to be given off in great abundance.

Female Smokers in Chicago.—According to newspapers reports, two women were arrested and fined $5.00 each, for smoking on the streets in Chicago, a few weeks ago. We make a note of this as a warning to women smokers of the consequences likely to ensue if they indulge in the filthy weed within the precincts of the city named. We were in the city not long ago, and saw not a few men smoking on the streets with the utmost composure, even when several policemen were in plain sight. We are puzzled to know why male smokers are not arrested as well as female devotees of the weed. Has not a woman as good a right to smoke, either at home or in the streets, as her husband or brother? The advocates of women's rights had better look after this matter. Or, perhaps it may be considered as a want of recognition of masculine rights. Has not a man as good a right to be arrested and fined for smoking on the streets as a woman?

A Dangerous Remedy for Diphtheria.—Among the scores of remedies advertized in the newspapers as sure cures for this formidable disease, most are harmlessly absurd, but some are about as dangerous as the disease itself. Of the latter class is the following, which we have seen quoted in several prominent journals :—

"Take live coals in a shovel and sprinkle a couple of spoonfuls of sulphur on them, and let the patient inhale the fumes. This will kill the fungus. The same remedy is recommended for colds and asthma."

It is probable that the majority of persons are too well acquainted with the properties of the fumes of burning brimstone to be foolish enough to try the experiment; but any one who would make the attempt to use the remedy as recommended, would soon make the discovery that brimstone smoke is quite as inimicable to life as diphtheria. The idea that brimstone fumes will cure colds and asthma is in the highest degree absurd.

Our advice to all who read these newspaper puffs of "sure cures," is to let them resolutely alone. Treated thus, they will at least do no harm.

Dyspepsia and Tight-lacing.—It has long been known that continued pressure upon the stomach is one of the most certain causes of indigestion and chronic dyspepsia. This is well illustrated in the forms of this disease which most often occur in shoe-makers, washer-women, and others whose occupations occasion constant or long-continued pressure upon the stomach or its immediate vicinity. The best illustrations of dyspepsia from this cause, however, are the almost countless instances in which the indigestion results from the pressure of stays upon the stomach. Young ladies are the most frequent subjects, especially those naturally inclined to plumpness, their vanity leading them to attempt to restrict the proportions of their waists, even at the expense of good digestion, good health, good looks, and in direct violation of good sense.

Danger in Mineral Waters.—A committee of the Academy of Science of Paris, has recently made a careful examination of many of the different varieties of mineral waters sold so largely at the present time, and finds that most of them contain dangerous quantities of lead, tin, copper, and other metals. A prominent French authority attributes the rapid increase of paralysis in France to the extensive use of mineral waters in that country.

Striking at the Root.—Prof. Goodell, an eminent author and practitioner of Philadelphia, who has for many years made a specialty of diseases peculiar to women, speaks thus plainly respecting one of the causes of one of the most heinous of sexual crimes, and its results :—

"Another great evil of our educational system is its publicity—the public examinations, commencements, etc. These produce a craving for the outside heat and strife and stir of life, and destroy all taste for the quiet and repose of *home*. The decay of home and family life is a lamentable feature of modern social life. Selfishness and individualism are supplanting them. Hence come criminal abortion and

the prevention of reproduction, sins which defile every class of society. These sins are accountable for much, if not most of, the wretchedness and misery of this land."

Sewer Gas and Erysipelas.—Recent experience and investigations in several English hospitals have determined very conclusively the fact that erysipelas is often caused by the poisonous exhalations from sewers, cesspools, and other sources of organic filth. In one case, a sudden outbreak of erysipelas was traced to the accidental stoppage of a drain-pipe by a careless workman. In another instance, thirty-two cases occured in an insane asylum from contamination of the air with emanations from the sewer.

Water-Drinking in Diabetes.—M. Senator, an eminent European authority, has by careful experiments, determined beyond chance for reasonable question, that the beneficial effect obtained from drinking certain mineral waters in diabetes is wholly due to the water itself, and not to any of its foreign ingredients, since he has obtained equally good results by the use of distilled water. The patient should drink one to two quarts of water daily. A greater quantity than this will be likely to prove injurious. The water should be taken hot.

Methodist Ministers Non-Smokers.—We have been glad to notice for several years an increasing interest on the part of the clergy of several denominations in the anti-tobacco reform. Resolutions have been passed at several Ministerial Conferences condemning its use in very positive terms. Methodist ministers have been particularly active in this matter; and we are pleased to see, by a recent report, that candidates for ordination in this denomination are rejected if they use tobacco. Let every denomination do the same, thus securing the influence of the example of the clergy in promoting this reform, and tobacco-users would soon begin to feel that they were guilty of a misdemeanor in using the filthy weed, instead of regarding the art of smoking as an accomplishment.

Danger from Rubber Dental Plates.—It is recently related that the red vulcanized rubber so much used in dentistry for plates for artificial teeth, is covered with bi-sulphide of mercury, a dangerous poison. The effect is stated to be to cause absorption of the structure of the gums, and to occasion soreness of the mouth as in salivation. The matter ought to be investigated at once, and, if true, vulcanized rubber, used for this purpose, should be discarded. Celluloid, and several other substances can well replace it if necessary.

Two Holes Needing Attention.—A correspondent of a daily newspaper said, with reference to the drainage and water-supply of a certain part of the country: "A man buys a plot of land, builds a house, and digs two holes; out of one he drinks, and into the other he casts all manner of dirt and refuse."

This is a homely, but scientifically accurate, description of the condition of things on a large proportion of country premises everywhere. In the majority of instances, the two holes are situated so near each other that the contents easily mingle together; at least the foul contents of the refuse hole find their way into the drinking hole, occasioning most mischievous results, in the shape of various stomach and bowel disturbances, typhoid fever, diphtheria, and other filth diseases.

Tobacco and Heart Disease.—Dr. Magrudder, an eminent physician and Medical Examiner for the U. S. N., affirms that one per cent of all applicants for admission to the navy are refused on account of irritable heart from the use of tobacco. We have met many similar cases of this kind, and have seen recovery rapidly take place on the discontinuance of the use of the poison. No physician of intelligence now attempts to defend the use of this vile and poisonous weed.

Dry Earth as a Disinfectant.—Dirt is so cheap that hardly any one appreciates its worth, at least very few know its value as a disinfectant. Dry earth is really one of the most excellent of all disinfectants, and possesses another advantage in that it can always be obtained in any quantity, without money and without price. Its very cheapness is perhaps, one reason why it is so little esteemed and employed. The character of the earth used, is. however, not a matter of no consequence. Coarse sand and moist earth are valueless. To be effective, the earth must be fine and dry. Dry, powdered clay is perhaps best of all. Dust from the road is excellent. Dry coal ashes are also very excellent. By the free use of dry earth, privies, stables, and similar sources of foul gases and disease-producing germs may be kept in a perfectly wholesome condition. The application of the earth once a week, once a month, or two or three times in the course of the summer, is not, however, sufficient. To be effective, it should be applied daily, and when the matter to be disinfected is large in quantity, several times a day.

A good supply of fine, dry earth should be kept constantly on hand, conveniently near to the place where it is to be used. When so good a disinfectant is so near, no one can have any excuse for tolerating a bad smell upon his premises.

Mr. Gough on Tea and Coffee.—Probably no one man in America, or, indeed, in the world, has contributed so much in the line of public addresses to the advancement of the cause of temperance, as Mr. Gough. His fame as an orator is world-wide ; and his whole energies have been assiduously devoted to the interests of temperance reform. Mr. Gough long since recognized the fact that tobacco-using is a twin evil with the liquor habit, and has used his influence against the filthy weed in every form. He has, however, never until recently investigated the effects of tea and coffee, and has habitually used them. In a letter which we recently received from him, however, in commendation of the Home Hand-book,—a copy of which we had the pleasure of sending him at his request,—he remarks that after reading the section on tea and coffee, he has about determined, with his wife who has always stood with him in his labors to advance the interests of temperance reform, to discontinue the use of the beverages, for a time at least. We trust Mr. Gough will, by the experiment, succeed in satisfying himself that tea, coffee, and all other beverages of the kind, really belong in the same class with tobacco, alcohol, opium, and other stimulants and narcotics, the chief difference being in the degree of their effects, rather than in kind. Temperance reform will never make really permanent headway until it includes in its list of prohibited articles, tobacco, tea, coffee, and all other narcotics and stimulants, as well as alcoholic drinks. The platform of the American Health and Temperance Association covers the ground fully, and so far as we know, it is the only temperance platform which does this.

A Salutary Hint to Rheumatics.—"Doctor," said a gentleman who was notorious for laziness in general, and slovenliness of person in particular,—"Doctor, I have tried everything I can think of for the rheumatism, all sorts of remedies, regular and irregular, change of diet, change of climate, and all without the least avail."

After surveying his untidy linen for a moment, the doctor suggested, "Suppose you try a change of shirt."

To Relieve Choking.—Dr. Beveridge, a noted British naval surgeon, states that blowing forcibly into the ear of the patient will give immediate relief in cases of choking from foreign bodies in the throat. The act excites so powerful reflex action that the obstruction is expelled from the windpipe. The plan is certainly worth a trial.

—The Illinois legislature has aimed a blow at the manufacture of oleomargarine by the passage of a law making the sale of impure or adulterated butter a finable offense.

LITERARY NOTICES.

YOUNG FOLKS' RURAL. Chicago, Ill.

This is a monthly designed especially for the entertainment and profit of the youth, both in city and country. Its contents, however, are excellent enough to interest the old as well as the young. It has recently adopted a new form, which is very neat and pleasing. It is beautifully illustrated, and the quality of its reading matter is both interesting and wholesome. Subscription price, $1.00 per year.

WE have received a copy of the "Rules and Regulations and Classification for the First Annual Exhibition by the Milwaukee Industrial Exposition Association," to be held in that city from Sept. 6 to Oct. 15, 1881. The managers design to construct and maintain in the basement of the principal building, an extensive Aquarium, which, together with the Natural History Department, the Horticultural Department, the Educational Department, and the Fine Art Department, will constitute attractive permanent features of the enterprise. There will be one of the best collections of foreign etchings and engravings, at the opening, ever exhibited in this country. We have no doubt that the entire Exposition will be one of the most successful of its kind ever held.

ANNUAL CATALOGUE OF THE STATE AGRICULTURAL COLLEGE OF MICHIGAN, 1880–1.—From the brief history of the Michigan Agricultural College given in this catalogue, it appears that the College was opened to students in May, 1857, being the first Agricultural College in the country. We do not hesitate to add that, during the twenty-four years of its existence, it has attained the highest reputation as a most excellent and successful institution. The curriculum includes surveying, laying out of grounds, mechanics as applied to implements, horticulture, agricultural chemistry, and such practical applications of science as are especially useful to the farmer, in addition to the branches usually pursued in our best academies.

LIGHT AND LIFE. FOR SUNDAY-SCHOOLS AND PRAYER AND PRAISE MEETINGS. By R. McIntosh. Published by O. Ditson & Co., Boston, Mass.

Light and Life has been very carefully prepared by Mr. McIntosh, and creates a very favorable impression on first sight, by reason not only of the bright, clean-cut appearance of its pages and title cover, but by the unusual excellence of its contents, which have been especially chosen to give to Sabbath-school teachers and scholars an entirely fresh collection of hymns and tunes, either original or selected, which will add a pleasing change to their work and exercises.

POPULAR SCIENCE MONTHLY: D. Appleton & Co., New York.

The racy series of articles on physical education, by Dr. Oswald, are continued in *The Popular Science Monthly*. This writer opens the June number by a very lively and instructive discussion on the subject of "Clothing." In some respects, his views may be thought extreme, but they will rouse attention to many bad habits, the evil effects of which are disguised by familiarity. Dr. Joseph Fayrer makes an important addition to the literature of "Sunstroke." His long residence in India afforded an extensive experience with heat-apoplexy, both among the resident Europeans and the natives, and the results of his observations and practice are here well summarized. Prof. Alexander Bell gives an illustrated paper on the "Production of Sound by Radiant Energy." There are many other equally interesting articles, all together serving to make this issue of this excellent magazine a most valuable one.

GOOD COMPANY for May has a long installment of "In the Land of the Midnight Sun," by Lieutenant Frederick Schwatka, commander of the Franklin Search Expedition, in which he begins the account of the great Arctic sledge journey, the longest both in distance and time ever attempted. "Recollections of My Childhood in Old Japan," is by a native of that country, a young lady now pursuing her education in the United States. It is perhaps a more detailed account of life in a Japanese family under the old régime than has been before published. One of the poems has for its subject Old Abe, the famous war-eagle of a Wisconsin regiment, that died recently. Other articles and poems round out the number. Subscription price, $3.00 a year.

THE July number of the *North American Review*, bears the usual characteristic of timeliness. Carl Schurz leads off with a suggestive paper on "Present Aspects of the Indian Problem," in which he discusses the Indian obstacle in the way of the country's development, the harmonizing of the habits, occupations, and interests of the red men, the necessity of educating their youth, the making of the men themselves small land proprietors, and the offering of inducements to them to sell for a fair compensation the lands they do not cultivate. Next a caustic writer gives the views of "A Yankee Farmer" on "The Religious Conflicts of the Age," to the discomfiture of the modern Agnostic, Moralist, and Evolutionist. Another trenchant article is "The Power of Public Plunder," by James Parton, which appeals to the sons of our men of character and wealth, on patriotic grounds, to enter into politics, and become the safeguards of their country against rings and bosses. Mr. Henry George dwells on "The Common Sense of Taxation." "The Cost of Cruelty" is presented by Mr. Henry Bergh; and "A Study of Tennyson" comes from the pen of Mr. Richard Henry Stoddard.

Publishers' Page.

☞ The Sanitarium foods are meeting with much favor everywhere. Those who have employed the various kinds of invalid food, are highly pleased with them. The praise which they have received from those who have given them a fair trial, is unstinted. We have no hesitation in recommending them to be exactly what they claim to be, which cannot be said of the various foods prepared by some firms, which make a business of supplying so-called "health foods." An examination of the article sold as gluten by a firm in New York, was recently made by an eminent Boston gentleman, with the result of showing that it was composed almost wholly of starch, and actually contains less gluten than some brands of wheat flour. The Sanitarium foods were first prepared for use at the Sanitarium, in the treatment of the sick. The present great demand for them, has been occasioned by the success which has attended their use as invalid foods at the Sanitarium. The manufacturers guarantee their goods to be exactly as represented, and to give satisfaction.

☞ In the offer made last month, to send a copy of the new version of the New Testament with Good Health for $1.10, the intent of the publishers was to offer an inducement to *new* subscribers only. Old subscribers are supposed to be sufficiently acquainted with the character of the journal to require no inducement to renew their subscription. The announcement was prepared just as the last form was going to press, and in the haste, the language employed was not so explicit as to make it impossible that it should be misunderstood. We wish now to state distinctly, that the offer was made to *new* subscribers only. The only inducement offered to old subscribers to renew, is the benefit which may be derived from the perusal of the journal, which is well worth ten times the subscription price to any one who values health.

☞ We call especial attention to the article in this number on the Care and Feeding of Infants. This is a subject upon which there prevails a great amount of ignorance that ought to be dispelled. The greatest share of all diseases of children, which are most prevalent during the summer season, arises from bad feeding. We would also, in this connection, call special attention to the infant food described on the pages devoted to Sanitarium foods. This article can be relied upon as just what it is recommended to be, and we trust that it will meet with the large sale which its merits warrant.

☞ May twenty-fourth, the third meeting of the "Citizens' Sanitary Association" was held at Skinner's Hall, Rev. D. F. Barnes, presiding. The attendance was very fair, and we were glad to know that the audience contained a large number of our most intelligent and influential citizens. Interesting remarks were made by Dr. Wattles, French, Hawxhurst, Prof. Spencer, Supt. of the schools of this city, and others. The secretary of the association, by request, made some interesting remarks on the subject of "Disinfection," which were illustrated by several experiments.

We have just received the first annual report of the inspector of vinegar of the State of Massachusetts. We find the report very interesting, and we shall take pleasure in placing part of it before our readers next month. It shows that the danger from this source, has not been overrated. Some of our readers will recollect that it was through the influence of this journal that steps were taken which resulted in the passage of the present law of Massachusetts, against the use of adulterated vinegar, and the appointment of the inspector.

☞ A special meeting of the American Health and Temperance Association was recently held at Spring Arbor, Mich. Remarks were made by the president of the Association, Eld. D. M. Canright, J. E. White, president of the Health and Temperance Society of Michigan, and others. The exercises were interesting in character, showing a lively interest in the advancement of the Health and Temperance reform in its broadest sense. At the close of the meeting, pledge papers were circulated, and a large number of signers obtained. Excellent music was furnished on the occasion by a choir, led by J. E. White, which rendered with excellent effect, several of the choice selections to be found in the "Temperance and Gospel Songs."

☞ We have recently received from the manufacturers a pocket head-rest, which is a most admirable addition to the comfort and convenience of a traveler. It is so arranged that it can be adjusted to the back of a car-seat or a common chair, and furnishes a comfortable rest for the head. It folds together so compactly that it can be carried in the pocket or handvalise, and can be adjusted for use in a moment's time. It can also be made of service by dentists, photographers, physicians, and others. Circulars can be obtained by addressing the Taylor Head-Rest Company, 159 Lake St., Chicago.

☞ A few weeks ago we received from the manufacturers, a "Fire on the Hearth" stove, of their most improved style. Several days ago we had the stove put up in our sitting-room, and the cold weather of the last few days has given us a fine opportunity for testing its efficiency. Everybody who sees it, is charmed with its appearance, as it possesses all the advantages of the open grate fire, at the same time, being so constructed that it can be converted into an air-tight stove in one minute's time. Its elegant pattern and finish make it an ornament to any room. But most of all, we value its efficiency as a heating and ventilating apparatus. It is so arranged that cold pure air from out of doors is brought into the room in sufficiently large volumes to supply any number of occupants, being warmed as it enters. At the same time, it is the most efficient ventilating apparatus we have ever seen in the shape of a stove, moving by a strong draft the impurities from the lower part of the room, thus bringing to the floor the pure warm air which constantly enters from without. The "Fire on the Hearth" stove is the product of a high degree of ingenuity, combined with a scientific knowledge of the conditions requisite for the highest degree of success, solving the problem of proper and efficient heating ventilation. We unhesitatingly give the article most hearty recommendation, and advise those who are desirous of purchasing heating apparatus, to correspond with the manufacturers, whom they will find ready to communicate all the information desired. Address, Open Stove Ventilating Co., New York City.