THE

HEALTH REFORMER.

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

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Is Alcohol Food?

THAT there is still great need of general and accurate teaching in regard to this question, is evident from the fact that while genuine authorities in physiology have long since answered in the negative, many pretenders to science in the provinces regularly retail in local papers the most exploded notions as to the dietetic value of alcoholics. One recent example shall suffice. In an Ayrshire paper, a writer alleges (on the ground of a *chemical* table giving the "units of heat"* supposed to result from the *artificial* and *complete* combustion of the dried elements of certain substances), that beer contains half the calorific power of beef usable in muscular exertion! The nature of this statement will be appreciated when we remind the reader that while the beef is almost entirely burnt up *within the living body*, the alcohol, the gummy matter, and the hop extract of beer, are as surely eliminated unchanged by the excreting organs; whence it follows that they cannot possibly yield a single unit of heat to the blood.† Everybody must see that, as the coals and chips that *fall out* of the grate are not the fuel that actually boils the kettle, so a substance like alcohol, which is constantly *cast out* of the bodily furnace, cannot contribute to the warming of the living house. Nothing can exceed the folly of the comparison of artificial combustion in the chemist's laboratory, where we can command all our conditions, with the actual, natural processes of the living frame, *first assumed to be identical.* The argument might have been just as logically expressed thus:—

"Sawdust, burnt up in the laboratory, yields an amount of heat approximating to the measure yielded by bread; therefore sawdust will *actually* yield so many units of heat *in the blood!*"

In this form, however, the sophism is too transparent to deceive; in the other it is obscure, and so gives a glad excuse for tippling.

"Science" knows nothing of "authorities," except in the sense of witnesses to fact. Science is "facts methodized and generalized by reason;" and "reason" is a common faculty whose decisions are of no private interpretation, but of universal authority. Private judgment can only justify itself by an appeal to this authority: it cannot *make* reasons or good reasoning; let us, therefore, carry this question to the Court of Fact, and let the imperial Reason give judgment on the case. To understand the laws and functions of food, we must understand the human body which *wants* food, since all special wants spring from special natures. The body, then, is a living, locomotive engine, for the generation of power (or force) of three sorts—chemical, mechanical, and nervous—with which three corresponding kinds of WORK are to be performed—vital, mechanical, and mental.

As with an engine we have, first, its *strength*, equal to so much "horse-power"—in other words, its mechanical capacity for strain and for the generation of steam; and, second, the *fuel* whence the steam power is to be derived (by the successive transformation of cohesion into heat, and heat into elastic force of vapor); —so, in the living body, we have, first, its measure of capacity (including muscular power and organic endurance); second, its food-adaptation for repairing waste by nutrition, and for the generation of heat. From this point, food appears to be requisite

*This means the *relation of heat to force* as determined by Mr. Joule; viz., the heat resulting from the concussion of the fall of one kilogram (2⅕ lbs. avoir.) through 425 metres, which would raise one kilogram of water 1 degree C. in temperature.

†Of 50 grains of gum in mixture, 46 grains were found in the excrement, undigested. We know the old traveler's tale of persons in the Sahara living *for days* on gum; just as we know of the Indians of Orinoco living for weeks on *clay*. Neither case applies to the ordinary circumstances of man; for if the gastric juice *does* partly dissolve gum when men are *starving* and it has nothing else to digest, experiments clearly prove that it will not do so when it has *anything better* to operate upon.

for *three* necessary ends, which are fulfilled by the supplementary agency of *drink*, as the neutral vehicle of chemical, nutritive, sanitary, and vital changes.

I. FOOD *must nourish* (*i. e.*, build up and repair) *the blood, and the organs and tissues formed out of it, by supplying the* MATERIALS *of which they are composed.*

But alcohol does not contain the constituent elements of the body; certainly not in any available form—and cannot, therefore, build it up. It has no iron or salts for the blood; no gluten, phosphorus, or lime for the bones; and no albumen, a substance which is the basis of every living organism. And even if it had any of these elements, it is an established fact that the body *eliminates* alcohol from its precincts, whether introduced as beer, wine, or grog.* The objector who says that "alcohol contains carbon, oxygen, and hydrogen, which are elements of the body, and *therefore* it will supply the waste of those products," reveals his complete ignorance of the first principles of vital chemistry. Animals cannot feed upon gases, nor appropriate charcoal: *that* is the peculiar function of the vegetable, the appointed organism for preparing the food of man. Drink alcoholic liquor, and in a few moments it can be *smelt* in the breath, or collected from the skin. Since alcohol will not stick to the living house, and is rapidly expelled from its organism, the belief that it can nourish is an utter delusion. It cannot, then, fulfill the first end of food.

Baron Liebig says: "Beer, wine, spirits, etc., furnish no element *capable* of entering into the composition of blood, muscular fiber, or any part which is the seat of the vital principle."

Prof. Moleschott, in his work on the "Chemistry of Diet," says: "Alcohol does *not deserve* the name of an alimentary principle." (Erlangen, 1853.)

Prof. Lehmann, in his "Physiological Chemistry," says: "We cannot believe that alcohol, theine, etc., belong to the class of substances *capable* of contributing toward the maintenance of the vital functions."

Dr. E. Smith, F. R. S., says: "Alcohol is *not* a true food. It interferes with alimentation." (1859.)

Dr. W. B. Carpenter, in the fourth edition of his "Manual of Physiology" (1865), says: "Alcohol *cannot* supply anything which is essential to the due nutrition of the tissues." (p. 327.)

II. FOOD *must* WARM *the body, by being burnt up* (*i. e., oxidized* through the agency of inspired oxygen), *either primarily as fuel, or secondarily as active, wasting tissue.*

Aliments are of two classes, (1) primary-nutritive; and (2) simply-respiratory. In plain English, one kind (albumen and its cognates) makes blood and builds up organs; another (oily and saccharine) is oxidized as fuel in the circulation, and thus yields heat by its decomposition. When nutritive matter, however, becomes flesh and nerve, and these, in the act of performing their vital functions, are worn down and change into urea, carbonic acid, water, etc., heat is *also* given out as a secondary provision; though the main source of warmth is to be found in the hydro-carbons (fat and sugar), whose heat-force then stands correlated to the work to be done, or the evaporation sustained.

Now the French chemists and physiologists, Lallemand, Perrin, and Duroy, as well as Dr. Smith and others, have amply demonstrated that alcohol, when drunk moderately,* is *not known to undergo decomposition at all* within the body, but *is known* to be constantly given off by the breath, skin, and kidneys. The vital organism obviously treats alcohol as an intruder, and, irritated by its presence, is roused into an abnormal state of activity, until the last atoms of the offending article are cast out of the temple which it pollutes. The body *then* resumes its ordinary functions, subject to the reaction of wasted power.

Dr. T. K. Chambers, in his remarkable book, "The Renewal of Life" (1862), says: "It is clear that we must cease to regard alcohol *as in any sense* an aliment."

Dr. Markham, F. R. S., sums up a long discussion on alcohol in *The British Medical Journal*, as follows: "It is, to all intents, a foreign agent, which the body gets rid of as soon as it can. Alcohol is *not* a supporter of combustion. Part, probably the whole, of it escapes from the body; and none of it, so far as we know, is assimilated. It is, therefore, not a food in the eye of science."

Dr. W. B. Carpenter justly says: "The experience of Arctic voyagers is most decided in regard to the low value of alcohol, in comparison with fat, as a heat-producing material. The operation of alcohol is essentially that of a stimulus—*being followed by a corresponding*

* It is true that only *one-third* of the alcohol absorbed in experiments has been actually re-collected from the breath, perspiration, and water of the body, by any apparatus yet devised; but, on the other hand, none of the known and immediate *derivatives* of alcohol—the substances into which it would turn, if decomposed at all, such as *aldehyde* and acetic acid—have ever been detected. If no "shells" are found, it is quite unwarranted to infer "eggs."

**Not* to "intoxication," as has been said; unless a *litre* of French wine will make a Frenchman drunk.

depression of power. Where exhilaration is produced, *there* is subsequent depression."

Baron Liebig says of the drinker: "SPIRITS, by their action on the nerves, enable him to make up deficient power *at the expense of his body.* . . . He consumes his *capital* instead of his interest. . . . WINE is constantly followed by the *expenditure* of power."

Not only is "the warming power of alcohol" a notion altogether unsustained by experience, yet clung to with a singular tenacity on negative grounds alone, it is distinctly opposed to the plainest facts. The process of combustion in the body is measured by the excretive products or derivatives of the food —carbonic acid and water. Now alcohol greatly *lessens* carbonic acid, as Drs. Prout and Fyfe proved so long ago as 1819.

Dr. Vierordt, of Carlsruhe, says, as the result of experiment: "The expiration of carbonic acid, after the [moderate] use of *fermented* liquors, is considerably diminished, and does not return to its normal quantity for the space of two hours." (1845.)

Prof. Lehmann says: "We should forbid the use of spirituous drinks, and not prescribe tinctures, which might *hinder* the necessary excretion of carbonic acid."

Dr. E. Smith says: "The action of the *skin* is lessened. It neither warms nor sustains the body, [though] the *sensation* of warmth is increased." In other terms, alcohol burns the nerves, but casts a wet blanket over the vital fire.—*Temperance Tracts.*

Our Digestions.

WHEN proper, natural, simple food is taken into the healthy stomach, no more is felt of it. If it be soluble, it is absorbed by the veins of the stomach. If it be solid food, it is, by the movements of the stomach, carried round and round its cavity, and mixed up with the gastric juice, which oozes into the stomach whenever food is put into it. This gastric juice is a clear, colorless, acid fluid, which flows freely into the stomach, as we have said, whenever food is taken into it. The gastric juice has very slight tendency to putrefaction, and may be kept for an indefinite length of time in a common glass bottle without developing any putrescent odor. The peculiar property of this fluid is that it dissolves meat, boiled white of eggs, and such-like substances. It does so even outside the body, but it does so best inside the body, assisted by the high temperature of the stomach and by its peculiar movements.

The gastric juice does not dissolve all kinds of food; it does not dissolve fat, nor starch, nor oil. Its proper duty is to dissolve meat, gluten [the most nutritious part of bread], caseine [the most nutritious part of milk], albumen [white of egg], etc. It is supposed that about fourteen pounds of gastric juice are poured daily into the stomach. Of course it is not secreted all at once—the stomach could not hold so much. What happens is this—when food is taken, gastric juice flows out into the stomach and dissolves the nitrogenous portion of the mass. Having dissolved the food, it is absorbed—sucked up, as it were—at once into the blood, with the food it has dissolved; then another portion is poured out, dissolves more of the food and is absorbed, and so on, until all that kind of food which it dissolves is taken from the stomach into the system. This will be the work of some hours. That portion of food which the gastric juice is not able to dissolve—such as fat, starch, etc.,—passes on into the intestines, and is there digested by other juices and secretions. The chief of these are the pancreatic juice, the bile, and the intestinal secretions, all contributing in one way or other to the solution of the food, and toward making it into a sort of emulsion which is favorable to its being absorbed into the system.

In health, we repeat, all these processes go on without causing pain or distension. The patient is not aware of them. It is plain that, in order to the due digestion of food, the stomach must be strong and well. It must have its chief work to do when it is strong enough to do it. It must have good blood in all its veins and arteries; and its nervous power should be good and healthy. If men weaken their stomachs with excessive work —that is, with superabundant meals—when they are tired and exhausted, digestion will not go on well. If they take very little air and exercise, their blood will not be good red blood; and if they worry themselves, their nerves will be weak and powerless; the nerves of their stomachs will be weak too, and neither appetite nor digestion will be right.

It may be difficult to classify dyspepsias, but it is easy to state the general conditions on which good digestion depends. Who are the people that are always talking about their digestion and dyspepsia? Not sailors, nor agricultural laborers, nor mechanics, nor boys and girls, nor, for the most part, men; in other words, not those who live much in the open air, and use their limbs and muscles. But who are the people who are half afraid of their meals, and have miserably to consider what shall we not eat, and what shall we eat? They are indoor sort of people,—tailors and shoemakers, milliners, clergymen, litera-

ry men, and nervous, fidgety people, who are always worrying themselves. Then there are people that weaken their stomachs by things which they take,—not only by too much beer and spirituous drinks, but by too much tea and too much tobacco.—*Sel.*

Poisonous Gases in Sleeping Apartments.

IT is a good omen for hygiene, that there is an increased public demand for information on this subject. There are various indications of this fact, but the most convincing one is the fact that our newspapers have recognized the necessity of supplying the people with this kind of knowledge.

The publishers of newspapers spare no pains to keep themselves well posted in the demands of the people. They are obliged to do this in order to successfully compete with rivals. The fact, then, that our popular newspapers contain a much larger supply of this kind of reading matter than ever before, is the best of evidence that the people are demanding information respecting the best manner of preserving the health. It is not always the case that the instruction found in our newspapers is perfectly reliable, yet much good is being accomplished through this channel.

The following from the N. Y. *Herald* presents some facts in a manner so easy of comprehension that we think it worth quoting :—

"During our waking hours when exposed to the influences of foul gases, there are sensations disagreeable or distressing that indicate the nature of their causes and suggest means of counteracting the latter. But when sleeping, the most insidiously dangerous poisons are inhaled with infected air, and the effect is often to lull the victim to deeper sleep. Hence there is no escape from this invisible danger and no means of avoiding it except careful ventilation, and, above all things, attention to the pipes leading sewage from the dwelling, and the flues that carry off the gases arising from stoves. Unless there is a free circulation and an adequate supply of pure air in a bedroom occupied by one or more persons, the volume of air inclosed becomes very rapidly exhausted of its life-preserving properties, and proportionately charged with gases of an opposite character. The mere breathing of the air takes from it the oxygen and returns a volume of carbonic-acid gas, which speedily assumes an undue proportion to the former and renders the atmosphere absolutely dangerous to life. But there are other sources of danger that too frequently fail to be recognized, even by generally careful householders. These are the pipes leading from water-closets, sinks, and fixed wash basins to the house drain, which often serve as the inlets by which that most deadly of poisons, sewer gas, enters dwellings.

"It is a popular error that the 'pipe trap,' if in good order and filled with water, keeps out this gas. Frequently and under many conditions the gas is forced by the pressure of expansion, and in low-lying districts by tidal pressure in the sewer, through this water barrier, and enters the bedroom, the water-closet, or the kitchen, without the least diminution of its poisonous properties. In the house it accumulates rapidly, and engenders typhus fever, diphtheria, and other forms of disease that are classed among the most fatal known to medical science. Unless the house drain is itself ventilated by an outlet shaft leading directly upward through the wall to the roof, there is no safety in the plumber's precautions against the entrance of sewer gas. It does not matter very much whether the poison enters the hallway from a water-closet, the kitchen from a sink, or the bedroom from a fixed wash hand-basin ; it will attack the sleeper in his bedroom. Thousands of fatal cases of disease that are believed to be the result of contagion are really due to sewer-gas poison brought directly into bedrooms by the ways we have suggested. Another dangerous gas that must be guarded against in bedrooms is that emanating from stoves. During cold weather these stoves are much used as heaters in sleeping apartments ; and through ignorance of the principles of combustion and ventilation, the carbonic-acid gas given off fills the air with its poison. It is a hundred times safer to sleep in a cold bedroom than in one heated by a badly regulated stove. Open fireplaces obviate all danger, and serve as the best means of ventilation."

Charity.—Every good act is charity. Giving water to the thirsty is charity. Removing stones and thorns from the road is charity. Exhorting your fellow-men to virtuous deeds is charity. Putting a wanderer in the right path is charity. Smiling in your brother's face is charity. A man's true wealth is the good he does in this world. When he dies, mortals will ask what property he has left behind him ; but angels will inquire, "What good deeds hast thou sent before thee?"—*Mahometan Tradition.*

SONG OF THE DECANTER.

THERE was an old decanter, and its mouth was gaping wide; the rosy wine had ebbed away, and left its crystal side; and the wind went humming, humming— up and down the sides it flew, and through the reed-like, hollow neck the wildest notes it blew. I placed it in the window, where the blast was blowing free, and fancied that its pale mouth sang the queerest strains to me. "They tell me—puny conquerors!—the Plague has slain his ten, and War his hundred thousands of the very best of men; but I"—'t was thus the bottle spoke—"but I have conquered more than all your famous conquerors, so feared and famed of yore. Then come, ye youth and maidens, come drink, from out my cup, the beverage that dulls the brain and burns the spirit up; that puts to shame the conquerors that slay their scores below; for this has deluged millions with the lava tide of woe. Though in the path of battle darkest waves of blood may roll; yet while I killed the body, I have damned the very soul. The cholera, the sword, such ruin never wrought, as I, in mirth or malice, on the innocent have brought. And still I breathe upon them, and they shrink before my breath; and year by year my thousands tread the dismal road to Death."

One Great Cause of Idiocy.—The celebrated Dr. Howe remarks as follows:—

"Intemperate parents give a weak and lax constitution to their children, who are, consequently, 'deficient in bodily and vital energy,' and predisposed by their very organization to have cravings for alcoholic stimulants. Many of these children are feeble and live irregularly. Having a lower vitality, they feel the want of some stimulation. If they pursue the course of their fathers, which they have more temptation to follow and less power to avoid than the children of the temperate, they add to their hereditary weakness, and increase the tendency to idiocy in their constitution—and this they leave to their children after them."

Transmission of Disease by Animal Food.

IN the north-eastern part of Ohio there have been a number of cases of death from trichinæ this present winter. It seems strange that people will persist in eating such loathsome stuff; but the majority will risk their lives rather than correct their habits.

The facts concerning the transmission of disease by animal food are often of a startling character. Some weeks since, I was riding with a friend through a section of the country in which the people had been greatly afflicted with the milk sickness. My friend, who is a perfectly reliable man, related some things which cannot fail to interest every reader.

An incredulous man, ignorant of the milk sickness, would not be persuaded that there was any danger. A cow which showed signs of the disease had been driven up on the place, when he, laughing at their fears, took a cup, and milking it full, drank the milk. He had been bitten by a dog some years before, but had never felt any ill effects from the bite, nor did he apprehend any danger. Instead of suffering with the usual symptoms of milk sickness, he was speedily taken with hydrophobia, and died in great agony.

Another case was of still greater interest. A cow died with the milk sickness; her hide was taken off, and, as is too often the case, the carcass was left on top of the ground to decay or to be devoured by other animals. The fowls on the farm ate of the carcass, yet they showed no signs of the disease. But some of these fowls were killed and eaten by the family, some eating heartily, and others eating but little of the flesh of the chickens. The whole family was taken sick; those who had eaten but little of the fowls recovered, while those who had eaten freely of them died with unmistakable signs of the milk sickness. To all appearance the fowls were not affected with the disease, yet it was very evident that their flesh transmitted the disease to the family.

It is impossible to conjecture how many mysterious deaths, with strange and unaccountable symptoms, have been caused by eating flesh bought in the markets. The facts which are constantly coming to our notice compel us to reflect on the danger of eating that kind of food.

J. H. WAGGONER.

—"There's something in this cigar that makes me sick," said a pale little boy to his sister. "I know what it is," responded the little girl, "it's tobacker!"

Little Health of Ladies.

AN able writer in the *Contemporary Review*, makes, under the above heading, very sensible remarks upon a number of the causes of feminine weakness, chief among which he places dress, remarking as follows upon this subject:—

A little girl in a London Sunday-school, being asked by a visitor why God made the flowers of the field, replied (not unconscious of the gorgeous paper poppy in her own bonnet), "Please, ma'am, I suppose for patterns for artificial flowers." One might anticipate some answer scarcely less wide of the mark than that of this sophisticated little damsel, were the question to be put to not a few grown women, "Why do you wear clothes?" Their most natural response would obviously be, "To be in the fashion." When we have visibly wandered a long way from the path of reason, the best thing we can do is to look back to the starting-point and find out, if possible, where we have diverged. In the matter of raiment that starting-point is not hard to find—indeed, to mark it is only to state a series of truisms.

Human clothing has three *raisons d'être*, which, in order of precedence, are these:—

I. HEALTH.

II. DECENCY.

III. BEAUTY.

HEALTH demands—

1. Maintenance of proper temperature of the body by exclusion of excessive heat and cold.

2. Protection from injury by rain, snow, dust, dirt, stones to the feet, insects, etc.

3. Preservation of liberty of action to all the organs of the body, and freedom from pressure.

DECENCY demands—

4. Concealment of some portions of the human frame.

5. Distinction between the habiliments of men and women sufficient to avert mistake.

6. Fitness to the age and character of the wearer.

7. Concealment, when possible, of any disgusting personal defect.

BEAUTY demands—

8. Truthfulness. The dress must be genuine throughout, without any false pads, false hair, or false anything.

9. Graceful forms of drapery.

10. Harmonious colors.

11. Such moderate consistency with prevailing modes of dress as shall produce the impression of sociability and suavity, and avoid that of self-assertion.

12. Individuality: the dress suiting the wearer as if it were an outer body belonging to the same soul.

(Be it noted that the fulfillment of this highest condition of tasteful dress necessarily limits the number of costumes which each person should wear on similar occasions. No one body can be adorned in several *equally suitable* suits of clothes, any more than one soul could be fittingly housed in twenty different bodies.)

Glancing back over the above table, we find this curious fact: The dress of *men* in all Western nations meets fairly all the conditions of health and decency, and fails only on the side of beauty. The dress of *women*, on the contrary, ever variable as it is, persistently misses the conditions of health; frequently violates the rules of decency; instead of securing beauty, at which it aims first instead of last, achieves, usually, ugliness.

It is to be remembered for our consolation and encouragement that men have arrived at their present good sense in dress only within two or three generations. A hundred years ago the lords of creation set beauty above health or convenience, just as the ladies do now, and peacocked about in their peach-blossom coats and embroidered waistcoats, surmounted by wigs, for whose stupendous discomfort even a seat on the judicial bench can scarcely reconcile the modern Englishman. Now, when the men of every European nation have abjured such fantastic apparel, we naturally ask, Why have not the women followed their example? Why is the husband, father, and brother, habited like a being who has serious interests in life, and knows that his personal dignity would be forfeited were he to dress himself in party-colored, beribboned garments, and why is the wife, mother, or sister, bedizened like a macaw, challenging every observer to note how much of her time, thoughts, and money, must have been spent on this futile object? The answer is one which it is not pleasant to make, discreditable as it is to both sexes. The women who set the fashions dress for admiration; and men like women who dress to be admired; and the admiration given and received is a very poor and unworthy admiration, not much better than a salmon gives to a glittering artificial fly, and having very little more to do with any real æsthetic gratification—as is proved too clearly by the thoroughly un-beautiful devices to which fashion has recourse. It is the *well-got-up* woman (to borrow a very expressive phrase), not the really well-dressed woman, who receives by far the largest share of homage.

And now let us see how all this concerns the health of women—how much of their

petite santé is due to their general neglect to make health the first object of dress, or even an object at all compared to fashion.

Tight-lacing among habits resembles envy among the passions. We take pride in all the rest, even the idlest and worst, but tight-lacing and an envious heart are things to which no one ever confesses. A small waist, I suppose, is understood to belong to that order of virtues which Aristotle decides ought to be natural and not acquired, and the most miserable girl who spends her days in a machine more cruel (because more slowly murderous) than the old "Maiden" of Seville, always assures us, smiling through her martyrdom, that her clothes are "really hanging about her!" It would be waste of time to dwell on this supreme folly. Mrs. Haweis says that sensible men do not love wasps, and have expressed to her their "overallishness" when they behold them. Considering how effectively they have hitherto managed to display their disapproval whenever women have attempted to introduce rational attire, it is a pity, I think, that they do not "pronounce" a little more distinctly against this literally mortal folly.

I have already alluded to the brain-heating chignons, just gone out of fashion after a long reign of mischief; and along with them should be classed the bonnets which expose the forehead to the cold, while the back of the head is stewed under its cushion of false hair, and which have the still more serious disadvantage of affording no shelter to the eyes. To women to whom the glare of the sun is permanently hurtful to the sight, the necessity of wearing these bonnets on pain of appearing singular, or affectedly youthful, constitutes almost a valid reason against living in London. And the remedy, forsooth, is to hold up perpetually a parasol!—a yet further incumbrance to add to the care of the draggling train, so that both arms may be occupied during a whole walk, and of course all natural ease of motion rendered impossible. In this, as in a dozen other silly fashions, the women who have serious concerns in life are hampered by the practice of those who think of nothing but exhibiting their persons; and ladies of limited fortune, who live in small rooms and go about the streets on foot or in cabs, are compelled (if they wish to avoid being pointed at) to adopt modes of dress whose sole *raison d'être* is that they suit wealthy *grandes dames* who lounge in their barouches or display their trains over the carpets of forty-feet-long drawing-rooms. What *snobbery* all this implies in our whole social structure! Some ten millions of women dress, as nearly as they can afford, in the style fit at the most for five thousand!

The practice of wearing *décolletée* dresses, sinning equally as it does against health and decency, seems to be gradually receding—from ordinary dinners, where it was universal twenty years ago, to special occasions, balls, and court drawing-rooms. But it dies hard, and it may kill a good many poor creatures yet, and entail on others the life-long bad health so naturally resulting from the exposure of a large surface of the skin to sudden chills.

The thin, paper-soled boots which leave the wearer to feel the chill of the pavement or the damp of the grass wherever she may walk, must have shortened thousands of lives in Europe, and even more in America. Combined with these, we have now the high heels, which, in a short period, convert the foot into a shapeless deformity, no longer available for purposes of healthful exercise. An experienced shoemaker informed the writer that, between the results of tight boots and high heels, he scarcely knew a lady of fifty who had *what he could call a foot at all*—they had mere clubs. And this is done, all this anguish endured, for the sake of—beauty!

Bad as stays, and chignons, and high heels, and paint, and low dresses, and all the other follies of dress are, I am, however, of opinion that the culminating folly of fashion, the one which has most wide-spread and durable consequences, is the mode in which, for ages back, women have contrived that their skirts should act as drags and swad dling clothes, weighing down their hips and obstructing the natural motion of the legs. Two hundred years ago the immortal Perrette, when she wanted to carry her milk-pail swiftly to market, was obliged to dress specially for the purpose. From that time to this the "cotillon simple"—modest, graceful, and rational—has been the rare exception, and every kind of flounce and furbelow, hoops and crinolines, panniers and trains, "tied-back" costume and *robe collante*, has been successively the bane of women's lives, and the slow destroyer of their activity.

It has been often remarked that the sagacity of Romish seminarists is exhibited by their practice of compelling boys destined for the priesthood to flounder along the streets in their long gowns, and never permitting them to cast them aside or play in the close-fitting clothes wherein English lads enjoy their cricket and foot-ball. The obstruction to free action, though perhaps slight in itself, yet constantly maintained, gradually tames down the wildest spirits to the level of ecclesiastical decorum. But the lengthiest of

soutanes is a joke compared to the multitudinous petticoats which, up to the last year or two, every lady was compelled to wear, swathing and flowing about her ankles as if she were walking through the sea. Nor is the fashion of these later days much better, when the scantier dress is "tied back"—as I am informed—with an elastic band, much on the principle that a horse is "hobbled" in the field; and to this a tail a yard long is added, which must either be left to draggle in the mud or must occupy an arm exclusively to hold it up. In youth these skirts are bad enough, as exercising a constant check on free and healthful movement; but the moment that the elastic steps begin to give place to the lassitude of middle life, the case is desperate. There is no longer energy to overcome the impediments created by the ridiculous *spancels*, and the poor donkey of a woman hobbles daily round a shorter and shorter course, till at forty or fifty she tells her friends with a sigh that she finds (she cannot imagine why) that she cannot walk at all!

Does decency require such a sacrifice as this? Does the utmost strain of feminine modesty ask for it? If it were so, I, for one, should leave the matter with a sigh, as not to be remedied. But who in his senses dreams that such is the case? Who, in the age of *robes collantes* and *décolletée* dresses, can pretend that a reasonably full, simply-cut silk or cloth skirt, reaching to the ankles and *no longer*, would not fulfill immeasurably *better* than any fashion we have seen for many a day the requirements of true womanly delicacy? It is for *fashion*, not decency, that the activity of women is thus crushed, their health ruined, and (through them) the health of their children. I hold it to be an indubitable fact that if twenty years ago a rational and modest style of dress had been adopted by Englishwomen and encouraged by Englishmen, instead of being sneered down by fops and fools, the health not only of women, but of the sons of women, *i. e.*, of the entire nation, would now be on altogether a different plane from what we find it.

Reviewing all these deplorable follies, we may learn to make excuses for legislators who classify women with "criminals, lunatics, idiots, and minors." It needs a woman's knowledge of the pernicious processes to which the opening minds of girls are commonly subjected—the false and base aims in life set before them, the perverse distribution toward them of approval and blame, admiration and neglect, and even of love and dislike, from parents, teachers, servants, brothers, and finally from the ballroom world into which they are now launched in childhood—to enable us to make allowances for them, and retain faith that there sometimes beats a real woman's heart under the ribs of a tightly laced corset, and that a head surmounted by a pile of dead women's hair is not invariably devoid of brains.

How is the remedy for this dreary round of silly fashions ever to be obtained? No woman who knows the world and how severe is the penalty of eccentricity in attire, will ever counsel her sisters to incur it for any motive short of a distinct duty. But if the hundreds of ladies who recognize the tyranny of senseless and unhealthful fashions were to combine forces to obey those fashions *just as little as may be*, to go as near the wind in the direction of simplicity, wholesomeness, and ease in their dress, as they dare, there would by degrees be formed a public opinion, rising year by year with the numbers and social standing of the representatives of common-sense. It must have been in some such way that our great grandfathers dropped their swords and bag-wigs and ruffles and embroidery, and took to dressing—as even the silliest and vainest men do in these days—like rational beings.

Poor Jacko.—Some time ago a gentleman who had been very kind to an Italian emigrant, received from him the present of a fine monkey. Pleased with his present, the gentleman spent much of his time teaching Jacko (the monkey) various tricks, so that in a little while he could very successfully imitate his master in most things. Desirous of exhibiting the remarkable traits of his favorite, the gentleman resolved to invite some of his male friends to a dinner party; and that Jacko might play the gentleman to advantage there was but one thing lacking,—Jacko as yet had not learned to smoke. To remedy this, his master one day lit a cigar, an example which Jacko soon followed. But, alas! it fared badly with him. Many a wry face did he show, but, encouraged by his master, he continued to puff, puff away. At last, overcome by the pernicious fumes, his eyes rolled in their sockets, his limbs gave way, and down he fell as drunk as a toper, and all his master could do was of no avail; poor Jacko died! No wonder, for tobacco is a poison, and thousands have been killed by it.

A college of physicians has said that not less than 20,000 in our land die every year by the use of this poison.

Three young men formed a smoking club, and they all died within two years of the time they formed it. The doctor was asked what they died of. He said, "They were *smoked to death*."—*Temperance Banner.*

Miss Nightingale on Nursing.

FLORENCE NIGHTINGALE, the queen of nurses, makes the following very sensible remarks on nursing:—

"Never to allow a patient to be waked, intentionally or accidentally, is a *sine qua non* of all good nursing. If he is roused out of his first sleep he is almost certain to have no more sleep. It is a curious, but quite intelligible fact, that if a person is waked after a few hours' instead of a few minutes' sleep he is much more likely to sleep again; because pain, like irritability of brain, perpetuates and intensifies itself. If you have gained a respite of either in sleep, you have gained more than the mere respite. Both the probability of recurrence and of the same intensity will be diminished; whereas both will be terribly increased by want of sleep. This is the reason why sleep is so all-important. This is the reason why a patient waked in the early part of his sleep loses not only his sleep, but his power to sleep. A healthy person who allows himself to sleep during the day will lose his sleep at night; but it is exactly the reverse with the sick generally; the more they sleep the better will they be able to sleep.

"I have often been surprised at the thoughtlessness (resulting in cruelty quite unintentionally) of friends or of doctors, who will hold a long conversation just in the room or passage adjoining the room of the patient, who is either every moment expecting them to come in, or who has just seen them and knows they are talking about him. If he is an amiable patient he will try to occupy his attention elsewhere, and not to listen; and this makes matters worse, for the strain upon his attention and the effort he makes are so great that it is well if he is not worse for hours after. If it is a whispered conversation in the same room, then it is absolutely cruel; for it is impossible that the patient's attention should not be involuntarily strained to hear. Walking on tip-toe, doing anything in the room very slowly, are injurious for exactly the same reasons. A firm, light, quick step, a steady, quick hand, are the desiderata; not the slow, lingering, shuffling foot, the timid, uncertain touch. Slowness is not gentleness, though it is often mistaken for such; quickness, lightness, and gentleness are quite compatible.

"Again, if friends and doctors did but watch, as nurses can and should watch, the features sharpening, the eyes growing almost wild, of fever patients who are listening for the entrance from the corridor of the persons whose voices they are hearing there, these would never run the risk again of creating such expectation or irritation of mind. Such unnecessary noise has undoubtedly induced or aggravated delirium in many cases. I have known such; in one case death ensued. It is but fair to say that this death was attributed to fright. It was the result of a long whispered conversation, within sight of the patient, about an impending operation; but any one who has known the more than stoicism, the cheerful coolness, with which the certainty of an operation will be accepted by any patient capable of bearing an operation at all, if it is properly communicated to him, will hesitate to believe that it was mere fear which produced, as was averred, the fatal result in this instance. It was rather the uncertainty, the strained expectation as to what was to be decided upon. I need hardly say that the other common cause, namely, for a doctor or friend to leave the patient and communicate his opinion on the result of his visit to the friends just outside the patient's door or in an adjoining room, after the visit, but within hearing or knowledge of the patient, is, if possible, worst of all.

"It is, I think, alarming, peculiarly at this time, when the female ink-bottles are perpetually impressing upon us woman's 'particular worth and general missionariness,' to see that the dress of women is daily more and more unfitting them for any 'mission' or usefulness at all. It is equally unfitted for all poetic and all domestic purposes. A man is now a more handy and far less objectionable being in a sick-room than a woman. Compelled by her dress, every woman now either shuffles or waddles; only a man can cross the floor of a sick-room without shaking it. What has become of woman's light step—the firm, light, quick step we have been asking for?"

Happy Women.—A happy woman! Is she not the very sparkle and sunshine of life? A woman who is happy because she cannot help it—whose smile even the coldest sprinkle of misfortune cannot dampen. Men make a terrible mistake when they marry for beauty, talent, or style. The sweetest wives are those who possess the magic secret of being contented under any circumstances.

Strict Truthfulness.—There is perhaps no quality which has a more pervading influence in giving color to the whole character than the strictest truthfulness, for it is the foundation-stone of honesty and an all-pervading integrity.

LITERARY MISCELLANY

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

CHARITY.

THE pilgrim and stranger who through the day
Holds over the desert his trackless way,
Where the terrible sands no shade have known,
No sound of life save the camel's moan,
Hears at last, through the mercy of Allah to all,
From his tent door at evening, the Bedouin's call:
"Whoever thou art whose need is great,
In the name of God, the Compassionate
And Merciful One, for thee I wait."

For gifts, in His name, of food and rest,
The tents of Islam of God are blest.
Thou who hast faith in the Christ above,
Shall the Koran teach thee the law of love?
O Christian! open thy heart and door,
Cry east and west to the wandering poor:
"Whoever thou art whose need is great,
In the name of Christ, the Compassionate
And Merciful One, for thee I wait."

—*Whittier.*

Temperance Essential to Christian Character.

BY MRS. E. G. WHITE.

GOD gives man no permission to violate the laws of his being. But man, through yielding to Satan's temptations to indulge intemperance, brings the higher faculties in subjection to the animal appetites and passions; and when these gain the ascendency, man, who was created a little lower than the angels, with faculties susceptible of the highest cultivation, surrenders to the control of Satan. And he gains easy access to those who are in bondage to appetite. Through intemperance, some sacrifice one-half, and others two-thirds, of their physical, mental, and moral powers. Those who would have clear minds to discern Satan's devices, must have their physical appetites under the control of reason and conscience. The moral and vigorous action of the higher powers of the mind is essential to the perfection of Christian character.

The ignorance that has prevailed in regard to God's law in our physical nature, is deplorable. Intemperance of any kind is a violation of the laws of our being. Imbecility is prevailing to a fearful extent. Sin is made attractive by the covering of light which Satan throws over it, and he is well pleased when he can hold the Christian world in their daily habits under the tyranny of custom. Those who allow appetite to govern them are, in many of their habits, elevated but little above the heathen. Satan is constantly drawing the people from saving light, to custom and fashion, irrespective of physical, mental, and moral health. The great enemy knows that if appetite and passion predominate, health of body and strength of intellect are sacrificed upon the altar of self-gratification, and man is brought to speedy ruin. If enlightened intellect holds the reins, controlling the animal propensities and keeping them in subjection to the moral powers, Satan well knows that his power to overcome with his temptations is very small.

In our day, people talk of the "Dark Ages," and boast of progress. But with this progress wickedness and crime do not decrease. We deplore the absence of natural simplicity, and the increase of artificial display. Health, strength, beauty, and long life, which were common in the so-called "Dark Ages," are rare now. Nearly everything desirable is sacrificed to meet the demands of fashionable life. Many are working out for themselves, through this violation of the laws of their being, physical suffering, and mental and moral feebleness.

Through his devices, Satan has, in many respects, made the domestic life one of care and complicated burdens, in order to meet the demands of fashion. His purpose in doing this is to keep minds so fully occupied with the things of this life that they can give but little attention to their highest interest. Intemperance in eating, and extravagance in dressing, have so engrossed the minds of the Christian world that they do not take time to become intelligent in regard to the laws of their being, that they may obey them.

If we would see the standard of virtue and godliness exalted, we, as Christians, have a work devolving upon us individually to control appetite, the indulgence of which counteracts the force of truth, and weakens moral power to resist and overcome temptation. As Christ's followers, we should, in eating and drinking, act from principle. When we obey the injunction of the apostle, "Whether therefore ye eat or drink, or whatsoever ye do, do all to the glory of God," thousands of dollars which are now sacrificed upon the

altar of hurtful lust will flow into the Lord's treasury.

Many who are held by Satan under the power of slavish appetite, are the professed followers of Christ. They profess to worship God, while *appetite* is their god. Their unnatural desires for hurtful indulgences are not controlled by reason or judgment. Those who are slaves to tobacco will see their families suffering for the conveniences of life, and for necessary food; yet they have not the power of will to forego their tobacco. The clamors of appetite prevail over natural affection, and this brute passion controls them. The cause of Christianity, and even humanity, would not in any case be sustained, if dependent upon those in the habitual use of tobacco and liquor. If they had means to use in only one direction, the treasury of God would not be replenished, but they would have their tobacco and liquor.

It is impossible for such men to realize the binding claims and holiness of the law of God; for the brain and nerves are deadened by the use of this narcotic. They cannot value the atonement, or appreciate the worth of immortal life. The indulgence of fleshly lusts wars against the soul. The apostle, in the most impressive language, addresses Christians, "I beseech you therefore, brethren, by the mercies of God, that ye present your bodies a living sacrifice, holy, acceptable unto God." If the body is saturated with liquor and defiled by tobacco, it is not holy and acceptable to God. Satan knows that it cannot be, and for this reason he brings his temptations to bear upon the point of appetite, that he may bring us into bondage to this propensity, and thus work the ruin of thousands.

The Jewish sacrifices were all examined with careful scrutiny to see if any blemish was upon them, or if they were tainted with disease; and the least defect or impurity was a sufficient reason for the priests to reject them. The offering must be sound and valuable. The apostle has in view the requirements of God upon the Jews in their offerings when he in the most earnest manner appeals to his brethren to present their bodies a living sacrifice. Not a diseased, decaying offering, but a living sacrifice, holy and acceptable unto God.

Many come to the house of God in feebleness, and many come defiled by the indulgence of their own appetite. Those who have degraded themselves by wrong habits, when they assemble for the worship of God, give forth such emanations from their diseased bodies as to be disgusting to those around them. And how offensive must this be to a pure and holy God.

A large proportion of all the infirmities that afflict the human family, are the results of their own wrong habits, because of their willing ignorance, or of their disregard of the light which God has given in relation to the laws of their being. It is not possible for us to glorify God while living in violation of the laws of life. The heart cannot possibly maintain consecration to God while lustful appetite is indulged. A diseased body and disordered intellect, because of continual indulgence in hurtful lust, make sanctification of the body and spirit impossible. The apostle understood the importance of the healthful conditions of the body for the successful perfection of Christian character. He says, "I keep under my body, and bring it into subjection; lest that by any means, when I have preached to others, I myself should be a castaway." He mentions the fruit of the Spirit, among which is temperance. "And they that are Christ's have crucified the flesh, with the affections and lusts."

Taken at his Word.

A WIDE cook-kitchen, with a breath of grape blossoms coming in at the open windows, and a glistening tin pan on the table full of dewy, scarlet strawberries waiting to be hulled—this is our scene; and our *dramatis personæ* consist of Mrs. Perkins, whose drowsily clicking knitting-needles keep time to the purr of the overgrown Maltese cat, and a pretty young girl with rather a flushed face, who had just entered from a doorway leading to the hall.

"Well," said Mrs. Perkins, looking up with that ineffably wise expression which is imparted to the human countenance by round silver spectacles perched obliquely on the bridge of the nose, "he ain't asleep, is he?"

"Yes, he is," was the answer.

"Thank fortune for that; there will be five minutes of peace, at least. You're tired, ain't you, Dora?"

"Yes," said Theodora White, "I am rather tired."

But her languid voice spoke plainly that the more accurate phrase would have been "very tired."

Theodora White was a tender, soft-eyed girl of eighteen, with a complexion of pearly clearness, and a rose apiece on her cheeks, and a pretty, pleading way of looking at you when she spoke. She sat down beside the window, where the mignonette-scented grape blossoms were swaying in the summer air, and leaned her forehead against the casement.

Mrs. Perkins eyed her with an owl-like glance of sympathy.

"It's a shame, so it is," said the old housekeeper, emphatically. "A man has n't no business to be so tryin'—no, not if he was sick forty times over! Scold, snap, snarl—this ain't right and t'other thing is wrong! That's the way he keeps it up. I declare, sometimes, when he gets in his tantrums, I've two minds and a half to give him a good shakin'. There ain't no sense in a man's bein' so unreasonable. You can't please him no way you can fix it."

"We can at least try, Mrs. Perkins."

"Yes, and that's jest what's a spilin' him. He knows very well that if he was to want the moon, you'd hunt up the longest step-ladder and try to reach it down. It al'ays did spoil children to let 'em have all they want, and your Uncle Joseph ain't nothin' but a grown-up child."

"But I do n't let him have all he wants, Mrs. Perkins."

"And a pretty kettle o' fish there'd be if you did. Humph!" and the old housekeeper pounced upon her ball as if she had, for a moment, identified it with the personage under discussion.

"It might n't be such a bad idea," said Theodora, after a moment's thoughtful silence.

"Be you crazy?" demanded Mrs. Perkins tartly.

"Hush!" Theodora started from her seat with uplifted finger. "He is awake; he wants me."

And she was gone, swift, noiseless as a white-winged dove, before Mrs. Perkins could volunteer to go in her stead.

"Yes," said Mrs. Perkins to herself, "it is a shame. He seems to think she's made of cast iron and India rubber—the old torment!"

Meanwhile Theodora hastened up stairs into a closely curtained sick-room, where a querulous old gentleman lay, tortured with a great deal of "hypo" and a very little actual illness. But Uncle Joseph White chose to believe that he was very ill; and who, pray, was a better judge of the state of his bodily health than himself? He screwed his face up into the semblance of a nut-cracker as his niece hurriedly entered the apartment and came to his bedside.

"I've been thumping on the floor till my arms are ready to drop out of their sockets!" he groaned. "Are you all deaf down stairs, or has old Perkins forgotten there is any one in the world but herself and her snuff-box?"

"I'm very sorry, uncle."

"Actions speak louder than words!" snarled Uncle Joseph, ungraciously.

"How do you feel now, Uncle Joseph?" asked Theodora, soothingly.

"I'm worse!"

"Are you?"

"Pulse higher—skin hot—face flushed; of course I'm worse. This confounded hot room is enough to throw any one into a fever! Open every door and window—quick!"

Without an instant's hesitation, Theodora unbarred the blinds, and threw open the four large windows and two doors. The light from the western sky streamed like a flood of fiery radiance into the room; the draught, whirling through, caught up newspapers, fluttered the leaves of books, and even upset Uncle Joseph's pet bottle of medicine.

"O-w-w w!" roared the sick man with vehemence that proved his lungs, at least, to be quite free from disease; "do you want to blind me—to blow me away?"

"You told me to do it, Uncle Joseph!"

"Shut the windows, quick—draw the curtains!" groaned Uncle Joseph. "Who's that battering down the door?"

"It's only a very gentle knocking, uncle."

"Then I'm nervous. Go and see!"

Presently Theodora returned.

"It's Major Crowfoot, uncle; he sends his compliments, and wishes to learn how you are."

"Tell him to go to the deuce."

"Yes, uncle."

"Well," said Uncle Joseph, as his niece returned to his bedside after a momentary absence, "what did he say?"

"He seemed very much offended, uncle."

"Offended! at what, pray?" demanded Uncle Joseph.

"I suppose at being told to go to the deuce!" answered Theodora, quietly.

"Girl!" ejaculated the invalid, raising himself half-way upon his elbow, "you did n't tell him that?"

"Yes, I did, uncle. You said yourself, 'Tell him to go to the deuce.'"

Mr. Joseph White fell back, flat and motionless, among his pillows.

"Theodora, you are a fool!"

"I'm very sorry, uncle," said Theodora, beginning to whimper.

Uncle Joseph stared at her in surprise. Could it be possible that the dreary days and weeks of her steadfast attendance had weakened her intellect and turned her brain?

"Give me my water-gruel," he said briefly, after a few moments' pondering over the unwelcome possibility.

Theodora brought in a neat little china bowl, with a silver spoon lying on the snowy, folded napkin that flanked it on the tray.

Uncle Joseph took one taste, and threw

down the spoon with a petulant sound not unlike a bark.

"Trash, trash! Insipid as dish-water. Throw it to the dogs!"

Theodora took up the bowl and started obediently for the door.

"Here, here!" roared Uncle Joseph. "Where are you going to?"

"To throw it out, uncle."

"Are you crazy, girl? The gruel's well enough, only Mrs. Perkins forgot the nutmeg."

"But, uncle," said Theodora, tasting daintily of the contents of the bowl, "it's insipid as dish-water."

"Will you allow me to have an opinion of my own?" snarled Uncle Joseph. "It's very good, if that old crone down stairs will add the nutmeg and give it another boil. Quick, now—I'm getting hungry! A man must eat, even if he's at death's door."

A minute afterward Mrs. Perkins was surprised by Theodora's entrance.

"Well," said the housekeeper, "what's awantin' now?"

"A little grated nutmeg in this gruel, and uncle would like it warmed up once more."

"What are you smiling about, Dora?"

"Was I smiling?"

"Your eyes was, if your mouth was n't, said Mrs. Perkins, keenly.

"Will you be as quick as you can, Mrs. Perkins?" said Theodora. "He says he is hungry."

But when Theodora re-entered her uncle's room, the invalid had taken another tack.

"Why did n't you stay all day?" he growled.

"Indeed, uncle, I hurried all I could," pleaded Dora. "Here's the gruel, all smoking."

But Uncle Joseph shook his head.

"It's too late; I've lost all my appetite!" he moaned.

"Won't you have the gruel, uncle?"

"No, I won't!"

And Uncle Joseph closed his eyes, as if to signify he was too weak to debate the question further. He waited anxiously for Theodora to press the question further, but she did not; and presently he opened his eyes the least little bit in the world.

"Theodora!"

"Sir?"

"I'll try just one spoonful of that gruel before it gets cold."

"Why, uncle, I threw it away."

"Threw—my—gruel—away!" gasped the sick man, breathlessly.

"You told me you did not want it, uncle."

"I told you so! Furies and fiddle-strings! You might know by this time that I do n't mean what I say. Get me some more—quick! If I had n't been bedridden for a year, I could go twice as fast as you do!" he added, grumblingly. "I never saw such a snail in my life. Oh, dear! to think I shall never walk again."

Uncle Joseph lay counting the seconds until his niece brought in a second bowl of gruel, this time so deliciously made that even he could not find fault with it.

"Uncle," said Theodora, as she set it on the table at the bedside, "the doctor said, yesterday, that he really thought, if you were to try, you could walk as well as anybody!"

"The doctor's a fool," said Uncle Joseph, and you may tell him so with my compliments!"

"I will, uncle, the next time he comes."

"Theodora!"

"Sir?"

"If you do, I'll disinherit you!"

"Very well, uncle!"

"Theodora, you'll have to feed me. This annoyance has weakened me terribly!"

"Yes, uncle."

"Stop—stop—it's hot—you're choking me!" But Theodora kept resolutely on.

"Sto-o-p!" spluttered Uncle Joseph, nimbly scrambling to the other side of the bed. What do you mean, Theodora? Did n't I tell you to stop? I do n't believe there's an inch of skin left on my throat!"

"You told me yourself, uncle, that you do n't mean what you say. How was I to know that this was an exception?"

An irate rejoinder trembled on Uncle Joseph's tongue, when suddenly he caught sight of a blue column of smoke wreathing up under his window.

"What's that smoke?" he ejaculated.

"I think it's Mrs. Perkins, sir, putting fresh kindlings on the kitchen fire."

"No, it is n't," yelled Uncle Joseph, "the house is on fire!"

Theodora dropped the spoon and bowl, and rushed out of the room, shrieking, "The house is on fire! help! murder! thieves!"

The servants below the stairs caught up the cry and echoed it in shrill dismay. Uncle Joseph listened with bristled hair and dilated eyes.

"Help! help!" he bawled, but no one responded. Louder still he yelled, but yet in vain.

"Am I to stay here in my bed to be burned to death?" he asked himself, and scrambled out with agility that fairly surprised himself.

The servants were arrayed on the lawn, staring in all directions to find the exact

locality of the fire, when the gardener uttered a shriek,—

"If there ain't master, as has n't left his bed for a year, a runnin' as if a tiger was arter him!"

"Where—where's the fire?" panted Uncle Joseph, gazing wildly around him.

Mrs. Perkins rushed to the front door, her cap-strings streaming.

"I never saw such a pack of born idiots in my life!" she gasped. "There ain't no fire—only a few pieces of green wood I put in the kitchen fire! One would think you'd never seen smoke afore, and—why, if there ain't master!"

"Theodora," said Mr. White, looking somewhat sheepish, "where did you see a fire?"

"I did n't see it, uncle, but you said the house was on fire," Theodora made answer demurely, "and of course I thought you must know. Please, uncle, go back to bed again."

"I won't!" said Uncle Joseph, gathering the skirts of his wrapper closer about him.

"But, uncle, you're sick."

"No, I'm not!"

"Uncle, do you really mean it?"

"Of course I do, Theo!"

And he did mean it. The cure had been effected; and Theodora mentally congratulated herself on the success of her plan of treatment. And Uncle Joseph never alluded to the day on which his niece had taken him so implicitly at his word.

The Art of Listening.

PERSONS who talk well are always in danger of talking too much; the better they talk, the greater the danger. Nearly all men and women who have gained the reputation of eminent conversationalists have been little else than monologists, and monologue is as deadly a foe to conversation as incurable stupidity. We get tired, after a while, of hearing the most eloquent speech if it comes from the same mouth, and we inwardly pray for what has been aptly called a few flashes of silence. How many brilliant people there are in society whom all their acquaintances fear on account of their gift of utterance. Everybody dreads to broach a topic, lest the sparkling talker should exhaust it and his hearers, and still be talking on. The passion for speech, like other passions, grows by indulgence, and at a certain stage of development becomes so morbid as to require neither sympathy nor response.

It is related of Macaulay that, having been introduced to, and driving a distance of six miles with, a deaf and dumb man, he pronounced him, some days after, to be a gentleman of the soundest views on politics, with an admirable way of presenting them. Madame De Stael, as the story goes, was induced by a satirist to harangue a stuffed figure one evening in a darkened room for nearly two full hours, the satirist having assured her that the figure was a distinguished Bavarian who regarded her "Germany" as the greatest work that had appeared during the Empire. Questioned subsequently as to her opinion, she declared that his merit was wholly beyond his reputation, that his ideas were at once original, profound, and comprehensive, and that he expressed them with luminous clearness and particular elegance.

These anecdotes, if not facts, are true to human nature, and illustrate the advantage of listening, or seeming to listen. No doubt Macaulay and De Stael—so egotistic and dogmatic were they, so absorbed in themselves—would have been so enraptured by the sound of their own voices as to imagine their monologue conversation delightful, and the persons who had never interrupted them fascinating companions. If the thing did not happen, it might have happened.

The art of listening is a delicate and difficult art, and one that is seldom practiced. It is delicate, because it demands, if not sympathy, a show of sympathy, and continuous attention as well as an air of interest. It is difficult, because self-assertion is natural, and a state of passiveness without manifestation of weakness is irksome to maintain. On account of its delicacy and difficulty, not less than from want of knowing how to manage it, is the art rare in society. The few listeners that understand listening are invariably liked, even admired, and not infrequently charm the talkers to whom they give ear. The nice listener is pretty sure to get a name for intellect, culture, wit, readiness—for any sort of quality, indeed, which he or she does not reveal, and may not possess. The person fond of talking usually endows the person who listens with whatever attributes he thinks he has himself; and his good opinion of the listener grows steadily, until sometimes it amounts to positive worship.

It is not enough to listen in a merely negative manner; for this appears like resignation, like silent suffering, like uncomplaining martyrdom, and, besides, may be mistaken for stupidity, which is fatal to the listener's hope and object. One may be as stupid as an owl in society, but his listeners must disguise his stupidity if they would be accepted; and, above all, never indicate or intimate to anybody else that the speaker has any possibility of stupidity. We can be dullness

and commonplace itself with impunity, provided we seem to think well of our acquaintances. We may be insignificant, and yet bear a reputation for individuality, cleverness, and character, so long as we assume prejudices in favor of our neighbors. And by listening patiently, earnestly, and pleasantly to whoever addresses us, even when we find nothing in the discourse that is new or entertaining, we may be certain of securing friends, since in so doing we silently compliment others, and repress whatever savors of egotism.

Our listening must be an art, in order to be effective; for, unless we make it an art, we shall often be tempted to betray boredom, and yield to the temptation. We must listen on principle, and try to be interested even when we are not. We should be surprised at the result of such earnest and self-denying continuance. What may be artificial and disagreeable at first will become, after a while, natural and welcome. We shall discover in our acquaintances what we have never suspected—that mere humanity is a strong attraction when it is relieved from affectation, as it will be if we treat it generously and sympathetically. Hardly anybody is absolutely dull or wholly devoid of charm if he be put at ease, and allowed to be his unrestrained self. And the real art of listening insures such conditions, and eventually begets a mutual interest which in the beginning may not be foreshadowed.

The art of listening is well worth cultivating. The bane of all society is egotism, which is so restless and exacting that it never pauses to see what mind and merit may lie behind the externally uninviting. The base of good society is benevolence; and the benevolence that prompts us to listen is ultimately remunerative in many ways.—*Harper's Bazar.*

A Fearful Risk.

THE pastor of a church in one of our large cities said not long ago: "I have officiated at forty weddings since I came here, and in every case save one, I felt that the bride was running an awful risk. Young men of bad habits and fast tendencies never marry girls of their own sort, but demand a wife above suspicion. So, pure, sweet women, kept from the touch of evil through the years of their girlhood, give themselves, with all their costly dower of womanhood, into the keeping of men who, in base associations, have learned to undervalue all that belongs to them, and then find no repentance in the sad after-years. There is but one way out of this that I can see, and that is for you—the young women of the country—to require in associations and marriage, purity for purity, sobriety for sobriety, and honor for honor. There is no reason why the young men of this Christian land should not be just as virtuous as its women, and if the loss of society and love be the price they are forced to pay for vice, they will not pay it. I admit with sadness that not all our young women are capable of this high standard for themselves or others; but I believe there are enough earnest, thoughtful girls in the society of our country to work wonders if faithfully aroused. Dear girls, will you help us, in the name of Christ? Will you, first of all, be true to yourselves and God; so pure in your inner and outer life that you shall have a right to ask that the young man with whom you marry shall be the same? The awful gulf of dishonor is close beside your feet, and in it, fathers, brothers, lovers, and sons are going down. Will you help us in our great work?"—*Sel.*

Don't, Girls.—Don't think that yards and yards of ribbons, ruffles, and lace will add one particle to your real value. Don't make a walking milliner shop or jewelry store of yourselves, covering all that is of true merit within you, with that which will attract only the shallow brained. Don't think sensible people are to be deceived by vain show; they look for beauty of heart and mind. Don't give the subject of matrimony a thought while in your teens, except to qualify yourselves for the responsible position in which it places you. You need all that time of your life to fit yourselves for it. Don't give your time and talents to the world, or to seeking the things of time and sense that perish with their using. God has created you for a nobler purpose, and made you accountable for what he has given you. Don't sell your birthright for a mess of pottage.—*Sel.*

Men Without Occupation.—The man who has nothing to do is the most miserable of beings. No matter how much wealth a man possesses, he can be neither contented nor happy without occupation. We were born to labor, and the world is our vineyard. We can find a field of usefulness almost anywhere. In occupation we forget our cares, our worldly trials, and our sorrows. It keeps us from constantly worrying and brooding over what is inevitable. If we have enough for ourselves, we can labor for the good of others; and such a task is one of the most delightful duties a worthy and good man can possibly engage in.—*Sel.*

NIAGARA.

BY MRS. W. J. FAIRFIELD.

CALM, peaceful river! Sail-boats
Glide gently with thy current,
Or launch forth from shore to shore;
And children, innocent and full of glee,
Play on thy banks, or paddle
With bare hands and feet
In the clear water at thy margin.
Fair flowers and ferns adorn thy course;
And these thou nourishest, to please
The eye of man by their frail beauty.
Songsters of heaven seek thy crystal tide,
And plunge themselves within thee;
And as they, thus refreshed,
Ascend up to the sky,
Fragments of crystal, stolen from thy bosom,
Fall, sparkling, back again.
The shifting clouds above thee,
And blue sky, and gorgeous banners
Heaven decorates and drapes
The wooded hilltops with at sunset time,
Are mirrored on thee.
In some secluded nooks, we see
Tall church spires, and the crowd of people
Gathering in the sacred building,
There to praise their Maker;—
Of all which, thou makest a photograph for
Heaven.

We look again. O river,
What a change! E'en while we praised
Thy beauty, didst thou transform thyself
As by magician's power.
But we must praise thee still.
If before beautiful, now grand;
As with terrific majesty thou sweep'st along.
As if in direful rage, thou soughtst revenge
For some imagined wrong, thou forcedst
Thy way, with unsuspected power,
Through massive limestone, down, and
Down, and down, till now
Thou flow'st 'twixt banks of rock
So high that man may have
No access to thy waters.
Sometimes thou leftst projecting boulders
To o'erhang, and like grim sentinels,
To watch o er thy maddened flow.
But soon, incensed, perchance, afresh,
Thou hurledst these from their places,
And, falling, they were lost within thy depths;
And, as another indication
Of thy wrath, whirlpools formed round
Them, rapids o'er them sweep.
But thy course shall be not long
Continued, ere thou exhaust thyself,
And flow peaceful as before.
Thou only art preparing for thy
Final leap,—the spectacle that all men,
From all countries, look upon with awe.

Niagara Falls! Words cannot do thee justice.
Once seen, remembered ever. Not seen,
Known nothing of. Beautiful curves
Of rock, that form the precipice;
The graceful sweep of water, as it
Hurries o'er the brink; white, feathery foam,
Resulting from the fall; together with
Great waves, that, leaping upward as if
They would regain the place whence they
rushed wildly down,
Only expand themselves into a spray
Most delicate and beautiful, and so are lost;—
These all combine to form a scene
That artist cannot picture,
No tongue nor pen describe.
We gazed in wonder, breathless;—
Trembling, even, as we thought of floods
That have o'erswept the land, making
Such havoc. But now the sun, before obscured,
Shone calmly forth, and, falling
On the mist, brought forth the rainbow,
Telling again God's promise unto man,
Fit place for sign of such a promise.

Plain Talk to a Girl.—Your every-day toilet is a part of your character. A girl who looks like a "fury" or a sloven in the morning, is not to be trusted, however fine she may look in the evening. No matter how humble your home may be, there are eight things it should contain; viz, a mirror, wash-stand, soap, towel, comb, hair, nail and tooth brushes. These are just as essential as your breakfast, before which you should make good and free use of them. Parents who fail to provide their children with such appliances not only make a mistake but commit a sin of omission. Look tidy in the morning, and after the dinner work is over, improve your toilet. Make it a rule of your daily life to "dress up" in the afternoon. Your dress may or may not be anything better than calico, but with a ribbon or flower, or some bit of ornament, you can have an air of self-respect and satisfaction that invariably comes with being well dressed.—*Christian Woman.*

The Rain Tree.—Among the many virtues of the eucalyptus, or blue-gum tree, is the property of absorbing moisture; and instances are related in which moist and marshy places have been made comparatively dry by planting trees of this species upon them, although the method of draining has not yet come into general use. There is another tree whose properties are as wonderful as the blue-gum. It is the rain tree of Peru; and it is said that the moisture drops from its leaves and branches all the time, and that in some instances the ground around it becomes a swamp. It would appear from these facts that by a judicious use of these trees, which are so opposite in nature, the wet places of the earth can be made dry and the dry places wet—that deserts may be turned into swamps and swamps into deserts. The rain tree, whose peculiar property is said to increase in the dry season, might be made useful for irrigation in this State.—*Napa (Cal.) Register.*

—A grain of prudence is worth a pound of craft.

A Sarcophagus.—The word literally means "flesh-eater." Its application to a receptacle for the dead arises, as stated by Pliny, from the fact that the ancient Romans made their coffins of a peculiar kind of stone obtained from Troas, which possessed the peculiar property of being able to entirely destroy the bodies placed in them, with the exception of the teeth, in forty days. It is supposed that the stone used was a variety of limestone.

Kind Impulses.—Many lose the opportunity of saying a kind thing, by waiting to weigh the matter too long. Our best impulses are too delicate to endure much handling. If you fail to give them expression the moment they rise, they effervesce, evaporate, and are gone. If they do not turn sour, they become flat, losing all life and sparkle by keeping. Speak promptly when you feel kindly.

Common Sense.—We are commanded to pray for the rulers of the land; but a Massachusetts preacher lately prayed that Congress might have a little more common sense. That is just what we all stand in need of. A little Greek, a little Latin, or a little philosophy may make fools of some men, but good common sense never will. It is something that never spoils, and is always in demand.

Friendship.—People young and raw and soft-natured think it an easy thing to gain love, and reckon their own friendship a sure price of any man's; but when experience shall have shown them the hardness of most hearts, the hollowness of others, and the baseness and ingratitude of almost all, they will then find that a friend is the gift of God, and that he only who made hearts can unite them.—*South.*

A Gentleman.—It takes four things to make a thorough gentleman. You must be a gentleman in your principles, a gentleman in your tastes, a gentleman in your person, and a gentleman in your manners. No man who does not combine these qualities can be justly named the true gentleman.

Sunshine.—People, like plants, grow pale and puny if the sun is shut out. Good health is the sunshine of the body; a cheery disposition is the sunshine of the soul.

—It takes a good many things to make a home, and forethought is one of the indispensables—forethought not merely for food and comfort, but for culture, recreation, employment, happiness.

Popular Science.

Oil of Vitriol in Illuminating Gas.—A committee of a Philadelphia Medical Society has recently been investigating the cause of the white coating which appears on all exposed brick work in all large cities. They found it to be made up chiefly of sulphate of magnesia. The magnesia is contained in the clay of which the bricks are made. The sulphuric acid comes from coal-gas and smoke from burning coal, two sources of this poisonous agent which are very abundant in all large cities. If coal-gas contains oil of vitriol in sufficient quantity to form a film of appreciable thickness on the surface of brick, it is easy to conceive that its inhalation in air contaminated by coal-gas, or the products resulting from its combustion, might be seriously damaging to health.

The Talking Machine.—Mr. Edison astonished the Polytechnic Association of New York, by the exhibition of his wonderful phonograph. A report of the exhibit says that "it proved its capacity as a linguist by repeating sentences spoken to it in English, Dutch, German, French, Spanish, and the Hebrew. It imitated with marvelous fidelity the barking of dogs, the crowing of cocks, etc., and then taking a severe cold, coughed, and sneezed, and wheezed, until the physicians in the audience instinctively began to write prescriptions. After the inventor had exhibited its reproduction of his remarks, his auditors wanted the machine to imitate theirs also, and for a long time the apparatus was made the recipient probably of all the different sounds that the human voice could produce or scientific ingenuity devise."

A Remarkable Discovery.—The present seems to be truly an age of wonders. Scarcely a month passes in which some new discovery is not made. Every week some inventive genius succeeds in accomplishing what has hitherto been considered an impossibility. For many years it has been taught, theoretically, that all substances might be made to assume a solid state provided the proper conditions could be secured, these conditions being a sufficient amount of cold and pressure. This theory had been verified with all known gases with the exception of six, which could not be condensed by any amount of cold or pressure which could be secured. In conse-

quence of this fact, the six gases referred to, of which oxygen, hydrogen, and nitrogen are the most common ones, have been considered as permanent gases. Within a short time, however, the six refractory gases have, by the employment of most extraordinary means, been reduced to the liquid state, this grand result having been reached simultaneously by experimenters in France and Switzerland. The pressure employed was about four tons to the square inch, and the degree of cold obtained was estimated at over five hundred degrees bebelow zero, a degree hitherto unprecedented. The text-books on chemical physics in the future will not need to make any exceptions to the general law which has long been taught, that all gases may be cooled or compressed to the liquid state.

Gravitation a Mode of Motion.—It was long ago ascertained that light, heat, electricity, and magnetism were not really primary forces, but modes of motion. Gravitation has hitherto remained a mystery. Endless speculations have been made upon its character. Prof. Faraday suggested that gravitation and electricity were correlative forces. Although he conducted many experiments for the purpose, yet he never succeeded in proving his hypothesis. The Professor of Natural Philosophy in Melbourne University has recently devised an experiment which seems to substantiate Prof. Faraday's hypothesis in a most remarkable manner. The experiment is now being repeated by other scientific men, and we hope soon to arrive at the facts in the case.

The Spirophore.—This instrument, devised by M. Woillez for resuscitating asphyxiated persons, and particularly those who have been in danger of death by drowning, is claimed to be superior to all other methods or appliances employed for such purposes. It consists of a sheet-iron cylinder large enough to receive the body of an adult person. This cylinder is closed at one end, and the body of the patient is inserted, feet foremost, at the open end, up to the neck, around which a diaphragm is placed in such a manner as to prevent air from entering the cylinder. An air-pump is then set to work; the air is drawn off from the cylinder, with the result of causing a partial vacuum, when the outer air by its weight forces itself into the lungs through the mouth and nostrils, which are exposed to the external air; by an opposite action of the pump the air is allowed to re-enter the cylinder, and respiration is thereby imitated. A glass plate inserted in the cylinder enables the operator to watch the movements of the chest, which rises and falls as in life, with the alternate working of the pump; these may be repeated about eighteen times a minute, and an exact imitation of natural breathing is thereby effected.—*Eclectic Magazine.*

Respiratory Sense.—Books on physiology teach that respiration, or the involuntary action of the chest which results in the inhalation and exhalation of air, is due to the necessity of the whole system for the oxygen which fresh air supplies, just as thirst for water arises when there is deficiency of water throughout the body; but recent experiments upon animals for the purpose of ascertaining the facts, show that there is a nervous center or ganglion at the base of the brain, near its junction with the spinal cord, which controls the act of respiration, and it is the insufficiency of oxygen in the blood circulating through this single center which excites more forcible and efficient acts of breathing.

Chromatic Aberration of the Eye, and Perception of Distance.—No one now-a-days supposes that the human eye is a perfect optical instrument, at least in the sense in which an optician speaks of an instrument as perfect. The eye possesses, for example, decided chromatic aberration. Rays of light of dissimilar color are not brought at once to an exact focus upon the retina, but each color has its own focal distance. Let a red object and a blue object, of equal size, stand side by side, and it will be found that the images of these two cannot be in focus at the same time; therefore the two objects appear to be unequally distant, or of unequal magnitude. Hence estimates of distance founded on apparent magnitude are liable to be rendered fallacious by the color of distant objects. And, on the other hand, estimates of distance founded on color are liable to be confused by apparent magnitude. So far as our ideas of distance are dependent on the accurate focusing of rays upon the retina, it is evident that a source of error must be thus imported into the data of our perceptions. The subject has lately been very ingeniously handled by Mr. S. P. Thompson, of the University College of Bristol. He enumerates the various data for forming an estimate of distance which are dependent upon the eye, and not upon the limbs. After discussing the respective values of these data under various circumstances, he inquires how far they may be dependent upon the color of an object, or upon the formation of an exact focus on the retina. Mr. Thompson concludes that the muscular sensation of adjustment of the eye to the focus of its lenses affords a possible means of estimating distances. When binocu-

lar methods, and those dependent on association of visible form and magnitude, fail, then the eye falls back upon color as a means of effecting this. In fact, color may in some cases outweigh the evidence of binocular vision. The chromatic aberration of the eye accounts for the well-known opinion of artists, that blue is a retreating color, and red an advancing color. Aerial perspective is indeed a true expression of a physical fact in the perception of distance. Mr. Thompson's paper is interesting as offering a scientific explanation of certain empirical rules of artistic practice, relative to the expression of distance in painting.—*Eclectic Magazine.*

Artesian Wells.—Though the name of these wells is derived from the province of Artois in France where they have long been used, they are not of modern origin. The Chinese bored them ages ago, and used them not only as sources of water, but of combustible gas and petroleum. They are usually from three to six inches in diameter, and rarely exceed twelve. The deepest well in the world is that at Sperenburg, Prussia, which is sunk to a depth of 3,900 feet. In the desert of Sahara, wells have been sunk to a depth of 1,200 feet, each one creating an oasis. Between the Southwestern States and Mexico, bores in the arid region there of between 800 and 900 feet have afforded water at an available distance. One of the deepest wells in the United States is at Columbus, Ohio, and is 2,775 feet deep. The time and expense required depends on the nature of the soil and rock to be penetrated.—*Sel.*

Utilizing the Flood-Water of the Nile.—Another gigantic engineering project has been suggested; namely, diverting a portion of the flood-water of the Nile into the deserts of Nubia, Libya, and Soodan. As is well known, the main stream of the Nile is fed by the great equatorial lakes of Africa, and its annual inundations are caused by the in-rush of torrent-water, laden with soil from the fertile slopes of the Abyssinian plateau. This silt is now for the most part deposited in the bed of the Mediterranean, where it is gradually forming a new delta. Sir Samuel Baker, in a letter to the London *Times*, after rehearsing these facts, proposes a plan by which not only the water of the Nile, but the mud which it now deposits wastefully, may be utilized as a means of fertilizing the deserts south of Egypt. He proposes, by suitable engineering works, to divert a portion of the Nile flood-water into these deserts, where it can deposit its rich sediment in the sands, and also irrigate them so as to transform them into "cotton-fields that would render England independent of America." He would construct sluices and dams at different points of the Nile; at the cataracts, for instance. These dams and sluices, by enabling craft to pass the cataracts, would also render the Nile navigable from the Mediterranean to Gondokoro.—*Pop. Sci. Monthly.*

The Toad and its Habits.—In former times the toad was considered a venomous reptile, but in our day its habits have been more carefully observed, and its great value to the pomologist and gardener has been fully established, on account of its propensity for destroying insects, especially those injurious to vegetation. We should, therefore, sedulously cultivate the friendship and crave the assistance of the insectiverous reptiles, including the snake, as well as that of birds.

Every tidy housewife detests the cockroach, mice, and other vermin. Two or three domesticated toads would keep the coast clear of these, and would be found more desirable than a cat, as they are wholly free from trespassing on the rights of man as does the cat. The toad is of a timid nature, loving dark corners, but soon becomes quite tame.

Many instances might be cited of pet toads remaining several years in a family, and doing valuable service with no other compensation than immunity from persecution. All that is necessary to secure their co-operation, indoor or out, is to provide them with cool and safe retreats by day, convenient access to water, and they will go forth to the performance of their nocturnal duties "without money and without price."

In Europe toads are carried to the cities to market, and are purchased by the horticulturist, who by their aid is enabled to keep in check the multiplication of the insect tribes which prey upon his fruits, etc.

No one can study the anatomy of this reptile without being convinced of its perfect adaptation to the sphere which it fills in the economy of nature. Its tongue, which is capable of great elongation, is attached to the anterior portion of the lower jaw; its free end, when the toad is in repose, reaching down to the borders of the stomach. The moment the toad sees its prey, its eyes sparkle, its toes twitch, and quicker than the eye can follow, the insect is transfixed and conveyed to the stomach of the captor.—*The Young Scientist.*

—A writer in Leslie's *Sunday Magazine* says, "It has been clearly demonstrated that the actual weight of the earth is 5,855,000,000,000,000 tons!" A heavy body, truly!

THE

HEALTH REFORMER

BATTLE CREEK, MICH., MARCH, 1878.

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

Guarding the People's Health.

FROM what we have been able to observe, we have been decidedly of the opinion that the people of Michigan have little appreciation of the value of the work which is being done by their State Board of Health in guarding and promoting the most vital of all interests, life and health. Patiently and unobtrusively, yet thoroughly, they are carrying on various series of investigation which are bringing out continually most practical results. They are also steadily working to secure proper legislation on the subject of sanitary science. We have a most excellent illustration of the worth of this kind of labor in the fact that through the persistent efforts of the Board, notwithstanding most vigorous opposition on the part of scheming manufacturers and capitalists, Michigan is now better protected from the danger of loss of life and property through cheap kerosene oils than is any other State in the Union. Not a gallon of dangerous oil can be sold in the State without the incurring of a heavy fine.

At a recent meeting of the Board, the Secretary's report showed that a vast amount of thorough and useful work is being done in the collection of statistical facts bearing on the diseases and disease-producing causes of this State. The Secretary, Dr. H. B. Baker, presented to the Board for discussion the subject of diphtheria, that disease having been recently more prevalent in this and other States than common. The general opinion expressed was that the gases and germs which arise from decaying organic matters, such as heaps of garbage, cesspools, damp and moldy walls, and like sources, are among the most active causes of the disease, notwithstanding the fact that it is propagated by contagion.

Dr. Dorsch, of Monroe, Mich., having reported some cases of lead poisoning from the use of tin vessels, Dr. Kedzie, as committee on "Poisons," etc., had conducted a series of experimental tests for the detection of lead in utensils in common use. Of a large number of articles examined, he found that three-fourths contained lead in very considerable quantities. The test employed is so simple that it can be used by any one, being the following: Place a drop of nitric acid on the tin to be tested, and evaporate to dryness by heating gently. Then add a drop of a solution of iodide of potassium. If lead is present, a yellow coloration will be produced. If not, no change in color will occur. Dr. Kedzie is to investigate the subject further and report at the next meeting. We would advise all who are purchasing tin or tin-lined cooking utensils to test the goods before purchasing, as much sickness and perhaps death may be saved by the simple precaution.

A Dispensation of Nature.

PEOPLE talk much of the dispensations of Providence in connection with disease and human suffering; but we rarely hear of a dispensation of nature. If a man loses the greater portion of his family with typhoid fever, he wonders, with his friends, at the dealings of Providence, and is, perhaps, inclined to murmur at the hardness of his lot. If a community is visited by an epidemic of diphtheria, or some other zymotic disease, people regard it as a visitation of Providence; and not a few instances have occurred in which, under the circumstances, the more religious part of the community have sought relief from the scourge by endeavoring, through fasting and other means, to persuade Providence to miraculously intervene for their relief, while enter-

taining in close proximity to their homes, and even their firesides, the material causes of the pestilence. Modern science has long since exploded the ancient mythical idea of disease, which held it as a means through which demons tormented humanity, for the gratification of their infernal malice. Disease is now known to be the result of tangible, material causes, which exist wherever disease exists, and the removal of which is essential to the curing of the disease.

Not long since, an instance came under our observation which illustrates, in a most forcible manner, this fact. A gentleman visited us from a distance, desiring a few days' treatment for what he supposed to be an attack of ague. Upon making an examination of his case, we found it to be one of typho-malarial fever, which is typhoid and malarial fever combined. He was at once placed under vigorous treatment, but his system was so saturated with the elements of disease that it was impossible to do more than to modify its intensity. While he was yet confined to his bed with the fever, his wife also came to us, presenting similar symptoms, although she supposed herself to be suffering with ague. We had no difficulty in distinguishing the case as one of typhoid fever with malarial complication. The disease took its usual course, being somewhat protracted, though modified in intensity by judicious treatment. After a few days, the gentleman's son followed his parents, suffering with what they supposed to be a form of epilepsy, having had fits while a small child. His parents thought it possible that he might be afflicted with worms; but we soon discerned this case also to be one of typhoid fever.

In the cases of all three, the temperature of the fever ran high, and was controlled with difficulty, indicating a most intense degree of blood-poisoning. As the sick ones lay in adjoining rooms, for convenience in nursing, and endured day after day the distressing symptoms of the grave malady of which they were suffering, a more truly hopeless group we never saw. Being naturally possessed of little hope and energy, the will seemed utterly powerless to aid them in resisting the disease, and rallying their vital forces. Their murmurs against Providence for the hardness of their lot were pitiable enough. They could not understand why they should be thus sorely afflicted.

After a protracted illness, the fever was finally subdued, and the father and son made rapid recoveries; but the mother, through a little carelessness in diet, brought on a severe attack of inflammation of the stomach, which nearly cost her life, entailing several weeks longer of most severe suffering. Her husband, who had gone to his home, was obliged to return to act as nurse for his suffering wife, and while doing so, suffered a severe attack of erysipelatous fever, which seriously threatened his life for several days. The gentleman felt his afflictions still more keenly on account of the expense necessarily incurred. Being in very limited circumstances, he had been obliged to labor hard and economize carefully for years, to save enough to purchase a humble home, which he had just succeeded in paying for when his afflictions began.

Having a few moments of leisure one morning when calling upon him at his room, we improved the opportunity to question him closely respecting the possible cause of the disease which had prostrated his family. As the result of the interview, we ascertained that although he was a farmer, and lived in a healthy locality, he had been surrounded by about the most unsanitary conditions possible. Although aware, from the reading of health publications, of the danger of water and air contaminations from animal excreta, he had, through carelessness, allowed the causes of disease to accumulate about his home in a most astonishing degree. The privy vault, though situated near the well, had been suffered to receive the accumulations of years without cleansing.

In addition to this cause of disease, which of itself would fully account for the sickness of his family, another cause, if possible still more active, had been in operation. Thinking in some degree to increase their small income, his wife had proposed, early in the spring, to assume the responsibility of superintending the hatching and rearing of a large family of chickens. The husband, thinking to make her labors as easy as possible, without regard for any other consideration, erected commodious quarters for the expected feathered multitude within a few feet of the kitchen door, around which daily thronged, during the sultr

summer months, several hundred chickens, old and young. The condition of the back yard in immediate proximity, can be better imagined than described. From the accumulated filth there constantly arose every day emanations of the foulest character. Was it any wonder that one after another of the family succumbed to the pernicious influence of such active disease-producing causes? Yet the unfortunate ones would lay the blame upon Providence, when themselves were alone responsible.

Thousands of farmers are daily jeopardizing the lives of their families by similar indiscretions; barn-yards, vaults, cesspools, hen-coops, and other sources of organic filth, are allowed to exist, for the sake of convenience, so near the well as to make their escape from poisoning thereby, in case they do escape, almost miraculous. And all this risk is run for the sake of convenience. If hen-coops, and hog-pens, and barn-yards must exist, let them be placed as far as possible from any human habitation.

Placing one of these hot-beds of disease so conveniently near the dwelling as to make contamination thereby not only possible, but probable, and even to make escape from poisoning well-nigh impossible, is the most absurd attempt at economy conceivable. The expenditure of millions of dollars yearly is occasioned by the disregard of the simplest and most common of sanitary laws. When people suffer in consequence of such transgressions, they alone are responsible. Providence has no responsibility in such cases; and to ask Providence to remove the consequences of such transgressions, while the violation still continues, is to ask him to ignore the very laws which he himself implanted in the human constitution.

Dispensations of Providence, so-called, might be much more properly designated dispensations of nature. From this it need not be inferred that nature is less merciful than Providence, since what we term nature is simply an established order in the manifestations of divine wisdom.

Facts about Digestion.—A writer in *The Doctor* has been making observations upon the processes of digestion through a gastric fistula, an artificial opening into the stomach. Among other interesting facts elicited by the investigation he mentions the following:—

1. The digestion of breakfast required five and one-half hours, while dinner required seven hours.

2. Alcohol, even when very greatly diluted, rendered the process of digestion very much slower than usual.

3. Coffee also delayed the digestive process an hour.

4. Pepsin, taken just before dinner, did not shorten the process.

These facts are of much interest, and have a very evident practical bearing.

Why the Turks Live.—A correspondent of the London *Times* wonders how the Turks can live under the many adverse influences which surround them, some of which he describes in the following paragraph:—

"It is certainly a mystery that the inhabitants of the Ottoman Empire did not all perish years ago from pulmonary diseases. Their feet are first swathed in a coarse rag, which is then wound round the lower part of the leg, and bound tightly with twine; on the rag is tied a piece of sole-leather hammered into a rudely shaped sandal, with sides rising one inch up the sides of the foot; holes are cut in the upper edges of the sandal and strings tied in them, and then fastened over the top of the foot. It is evident that their feet are wet the moment they step into mud or water over an inch in depth. This they are doing constantly in bad weather; consequently, their feet are soaking wet for a week at a stretch; and yet they live and multiply. They violate every known law of hygiene in the ventilation and often in the cleanliness of their dwellings; and yet their children are generally sturdy-looking, and the adults show fair average physique. They sleep in rows on a mat laid upon the floor of their underground huts. Sometimes the floor is covered with them, and yet they do not appear to suffer for want of oxygen."

If the writer of the above paragraph would make as careful a study of the dietetic habits of the Turks as he has made of their other habits, he would find that in consequence of his simplicity and abstemiousness of diet, the Turk is tough. He possesses an amount of constitutional vigor and endurance which cannot be readily found among other nations. In the present war, numerous illustrations of

the almost unprecedented power of endurance manifested by the Turks have appeared. It is in consequence of his comparatively healthful diet that the Turk is enabled to endure a great variety of other exposures and disease-producing causes.

We see the same principle illustrated everywhere. Persons with delicate constitutions, with apparently small powers of endurance, are enabled to endure an amount of labor and care which indeed seems marvelous to those who, while naturally strong and vigorous, find themselves completely used up by a little extra exertion in consequence of their injudicious indulgence in the use of food which inevitably undermines the strength of the digestive organs.

If a person will eat right in every particular, taking food of the best possibly quality, and in just the proper quantity, with regularity, and at proper times, thus keeping his digestive organs in good working order, he will find himself prepared for any emergency demanding simply physical endurance, and will be able to outwork and outlive people who have naturally a double amount of constitutional power.

A Hog Defender.—A writer in the Toledo *Blade* attempts to defend the hog against the grave charges which have been brought against him, and especially of late, as a cause of disease. The writer referred to says that he bristles all over with arguments in favor of pork; and yet, notwithstanding his assertions respecting the utility and necessity of pork as an article of food, he presents no logical argument in its favor. He argues, for instance, that pork "cannot be very detrimental to general health, or the mortality bills would be fearful to contemplate." As though the mortality bills were not fearful to contemplate! The writer of the article referred to must be grossly ignorant, if he is not aware of the fact that nearly half a million of our fellow-citizens are annually sacrificed to the many causes of disease of which pork is one, many of which might be easily prevented.

The only other argument employed is that trichinæ poisoning is not heard of as frequently now as formerly, which, it is claimed, proves that the disease is disappearing. This conclusion is evidently erroneous, since the fact that less disturbance is now created by this terrible disease is not inconsistent with the fact that it is extending its ravages, and silently working as vigorously as ever. The reason why less is said in the papers concerning the disease is that cases of this sort have now become so common that it is hardly considered worth while to call the public attention to them.

We have no evidence that the porcine scavenger has shown the slightest disposition to reform his habits, or that there has been any appreciable improvement in his state of health. We advise all who wish to escape from such diseases as trichinosis, tape-worm, erysipelas, and kindred diseases, to discard at once and forever the use of swine's flesh.

The Brains of Criminals.—Dr. Benedict of England, according to the *British Medical Journal*, has been making a careful study of the brains of sixteen criminals. In his report of investigation, he affirms that he found in each of the brains examined some abnormal condition, none of them being perfectly healthy. The most noticeable fact which he observed was that the organ, in a majority of the cases, showed a marked deviation from the type of the normal human brain, and showed a distinct resemblance to the brains of lower animals. In some instances there was a want of symmetry between the two halves of the brain. In others, that portion of the brain in which the moral faculties are located by phrenologists, was much below the average size. Other interesting facts were elicited, which we have not space to describe.

These investigations are of great interest on account of the light which they throw upon the subject of moral responsibility. They prove most conclusively that morbid physical conditions are a very common cause of moral obliquity. While they need not lead us to the extreme position held by some, namely, that crime and all other forms of wickedness are simply different phases of disease which should be treated as such, they should, at least, lead us to look upon the criminal class with a large measure of charity, and should teach us the futility of attempting to secure any great degree of moral improvement without close attention to the reformation of physical conditions as well.

A Bright Idea.—The Georgia Legislature has proposed to enact a law prohibiting the sale of tobacco to minors. Why not? The sale of liquor to minors has already been prohibited by law in many States, and why should not the tobacco traffic be restricted in the same manner? Tobacco is a greater poison than alcohol, and is certainly productive of an equal amount of harm when we take into the account the indirect as well as the immediate effects of the drug. If the use of tobacco among boys could be controlled, the number of tobacco-users would speedily diminish; for there are few adult users of the weed who will not readily admit that the habit is a filthy, expensive, useless, and harmful one. Few would learn the practice at all if they did not when young. We sincerely hope the bill will pass.

Dog-Liver Oil.—Cod-liver oil, once a very popular remedy, is recently falling into disrepute, even among its old friends, who have discovered that the nauseating remedy often does the stomach more harm than it could possibly do good to any other part. Many of our best physicians now affirm that sweet cream is fully equal to cod-liver oil in all respects, while infinitely more palatable. The *Investigator* helps along the growing prejudice against the extract of cod livers by relating the following anecdote:—

"A jolly old German, while suffering from a pulmonary attack, sent for a physician. In a short time the doctor called on him, prescribed two bottles of cod-liver oil, received his fee of $8, and was told by the German, who disliked the size of his bill, that he need not come again. The German, who had not heard the doctor's prescription very well, supposed that he could get the oil and treat himself. The doctor saw no more of the patient for some time; but one day riding past the residence of the German, he was pleased to see him in the garden digging lustily. The case seemed such a proof of the virtue of cod-liver oil that he stopped to make more particular inquiries about it.

"'You seem to be getting very well,' said he, addressing the German.

"'Yaw, I ish well,' responded the formerly sick man.

"'You took as much oil as I told you?' queried the doctor.

"'O yah, I have used many as four gallons of de dog-liver oil!'

"'The what?' said the doctor.

"'De dog-liver dat you say I shall take. I have killed most every fat little dog I could catch, and de dog-liver have cured me. It is a great medicine, dat dog-liver oil!'

"The doctor had nothing to say, but rode quickly away."

Questions and Answers.

Gray Hair—Sugar.—A. M. W., Mich., inquires: 1. How can hair be prevented from turning gray? 2. What kind of sugar is the most healthy, brown or white? 3. Is sugar healthy as a diet?

Ans. 1. The only means of preventing the hair from becoming gray is a maintenance of a healthy condition of the scalp, which may be secured by thorough cleansing, and free exposure to the air. 2. In general, the best white sugar is the most healthful, since brown sugar contains a considerable portion of impurities, and the medium grades of sugar are subject to a considerable degree of adulteration. 3. The liberal use of sugar as an article of diet is very productive of disease of the stomach and liver.

Piles.—T. S. P., Wis., asks what will cure an extreme case of piles.

Ans. An extreme case of hemorrhoids can be cured only by a surgical operation. The operation may be performed by ligature, by electricity, or by other means. Our advice would be to apply to a competent surgeon for treatment. When cured, careful regulation of the diet and regularity of the habits will be necessary to prevent a recurrence of the disease.

Catarrh, etc.—C. G., Chicago, writes: 1. I have been troubled for the last year with a cold in the head, which has its seat in the nostrils. It is impossible for me to inhale any pungent smell through the nostrils, without my eyes watering. I therefore ask you to publish one or two *good* recipes as soon as possible. 2. Is onion sirup good for consumption?

Ans. 1. Our correspondent is evidently suffering from nasal catarrh, which induces abnormal sensibility of the mucous membrane of the nose. We know of no *good* recipes for the cure of catarrh; in fact, we do not believe that there are in existence any recipes which will cure catarrh. 2. Onion sirup will not cure consumption.

Catarrh.—P. I., Ill., asks for suggestions concerning the treatment of catarrh.

Ans. Chronic catarrh of the nasal cavity is one of the most obstinate diseases which is presented for treatment. There is no one thing that will cure this disease. The only hope for curing it is in a combination of all the conditions required to improve the general health, and to remove the remote causes of the disease. The nasal douche is often of great advantage when applied judiciously, but it is capable of doing great harm when used carelessly.

Chronic Diarrhea.—W. T., Wis., asks for advice for the treatment of chronic diarrhea.

Ans. Chronic diarrhea is frequently one of the most obstinate of all diseases. Its management often requires the utmost skill of the most intelligent physicians; and even then, cases occasionally occur which cannot be controlled by any known means. Much relief can be obtained, and sometimes a permanent cure can be effected, by the adoption of the following simple means:—

1. Carefully regulate the dietary. No coarse food should be eaten. If graham flour is used, the coarsest of the bran should be removed with a sieve. Coarse vegetables should be wholly discarded. The diet should consist chiefly of nitrogenous foods, such as eggs, boiled milk, oatmeal, and other bland and unirritating articles. The dietary should be very simple. Few kinds should be taken at a meal. It is especially important that the food should be very thoroughly masticated. All rich food should be wholly discarded.

2. Every means should be employed for the restoration of the general health; as exercise in the open air, sufficient bathing to promote cleanliness, and a removal to a salubrious climate if necessary.

3. Local external applications will often be found of advantage. Such means as alternate hot and cold applications over the abdomen once or twice daily, together with wearing the abdominal bandage nights, in many cases, will give great relief. There are many other means of treatment of real importance in this disease which the scientific physician will be able to employ, but which cannot be safely trusted to invalids not well versed in medical science.

Stomach Digestion.—L. M. D., Ky., asks if all food taken into the stomach after digestion has begun, interrupts the work until the new food has been brought up to the point to which the first food has attained.

Ans. The effect upon digestion depends wholly upon the stage to which it has advanced in any particular case. Digestion begins in the stomach a few moments after the first morsel of food is swallowed. Some portions of the food taken into the stomach at a meal, are digested and pass out of the stomach before the meal is finished. The supposition referred to, is chiefly erroneous; although if food is introduced into the stomach several hours after a meal, digestion will be quite likely to be disturbed.

Dyspepsia.—N. N. W., Mass., complains of a gnawing sensation in his stomach just before and just after meals; and asks if the sensation is a symptom of tape-worm.

Ans. No. The difficulty is dyspepsia. You can probably be cured by a judicious dietary.

Corn-meal—Carrots.—An Iowa correspondent asks, 1. Is bolted corn-meal good, wholesome, and nutritious food? 2. Are raw carrots good food?

Ans. 1. Corn-meal from which the coarser bran has been removed is, when properly prepared, good food for people who have moderately strong digestive organs. Corn-meal is not good food for most people whose organs of digestion are delicate. 2. All vegetables require cooking before they are suitable to enter the human stomach.

H. C. M., Mass., asks, 1. What treatment would you give for hypertrophy of the uterus? 2. What diet is best for a person thus afflicted? 3. What is the cause of deficiency of red in the blood?

Ans. 1. A person suffering from this disease will not be likely to recover at home, as such cases require skillful treatment, and should be under the care of a good physician. 2. No special diet is necessary in such cases. All that is important is that the food should be nourishing and simple. 3. The condition of the blood of the system in which there is a deficiency of red corpuscles is what is called anemia. The causes of this disease are numerous. Anything that impoverishes the general health, or deranges the digestive organs, will be sure to occasion the disease. The proper treatment for this morbid condition is improvement of the general health by the use of tonic treatment, and a wholesome dietary.

E. D., Canada: The girl is evidently suffering from a serious difficulty; and my advice to you would be that you have her thoroughly examined by a competent physician as soon as possible.

DIETETICS.

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

Adulterations of Sugar.—It has long been known that sugar was subject to numerous adulterations, of which sand, chalk, and inferior sugar made by a chemical process from sawdust, rags, and the refuse of starch factories, constituted the chief; but E. W. Runyon has recently reported to the Alumni Association of the N. Y. College of Pharmacy that still other methods of adulteration and contamination have been invented. He states that "a comparison of several brands of supposed A. No. 1 granulated sugars of the market produced syrups of different tints, which suggested an examination of their quality.

"Samples were found containing a considerable proportion of ultramarine, which, after several days' standing, was deposited. Syrups made from sugars having the ultramarine impurity are discolored, being usually of a pale straw-color.

"This adulteration, and additions of sulphate of tin, alum, etc., are used by refiners in the interest of dollars and cents, and are designed to neutralize the yellow tint in imperfectly refined sugars. The practice is known among refiners as adding the complementary color.

"Unquestionably, ultramarine adulteration is chemically injurious, being decomposed by fruit or organic acids with evolution of sulphureted hydrogen, which produces a disagreeable taste."

Deaths from Trichinosis.—The Cincinnati *Enquirer* publishes the following as a dispatch from Youngstown, O. :—

"Six weeks ago Fred Benk, Sr., a laborer at the Girard Furnace, killed a hog, and from the head and other rough parts made what is called 'wurst.' Of this the entire family, numbering five, ate heartily in its raw state. A few days afterward Mrs. Fred Benk was taken sick, and died on New Year's Day, the family physician pronouncing the disease typhus fever and rheumatism. Their two children, Eva and Frederick, Jr., aged respectively five and seven years, were taken sick shortly before their mother died, the symptoms being the same. Another physician was called in, and he pronounced the disease spotted fever. Wednesday of last week Dr. Lauterman, of this city, a graduate of the University of Austria at Vienna, was called. He immediately declared the disease was trichinæ, other physicians ridiculing his diagnosis. Sunday Eva died and was buried.

"Yesterday Dr. Lauterman insisted on reexamining the pork in use by the family, and with the naked eye, white bodies were discovered in the muscles, while with the aid of a microscope the thread-like worm, wound up spirally, was found in countless numbers. To-day a small portion of the muscle was taken from an arm of the dead girl by Dr. Lauterman, and, from calculations made by him, one cubic inch of muscle contains 100,000 trichinæ spiralis.

"The boy Fred was visited to-day by an *Enquirer* correspondent, who found him lying in bed on his back, with his arms and his legs wonderfully swollen and drawn out of shape by contraction of the muscles. On touching the muscles his pain became indescribable. His physician says death is almost inevitable. Mrs. Benk, sister of Fred Benk, Sr., who lives with him, was taken sick to-day. Dr. Lauterman says that within twenty-four hours she will be prostrated with the terrible disease. Ernest Benk, of this city, attended the funeral of Mrs. Fred Benk on New Year's Day, and partook of the meat in use in the Benk family, and yesterday was prostrated with trichinæ. Pork is at a discount here."

—If a glass bottle containing water be covered with a cloth which is kept wet with water, the evaporation from the wet cloth will soon diminish the temperature of the contents of the bottle. If the cloth were moistened with alcohol or with ether, the cold would be much greater, because the evaporation is more rapid. Earthen vessels of porous earthenware act in the same manner as the cloth described. By employing this simple device one can have a supply of cold water on the warmest days without the use of ice.

—More than five million cans of corn are packed in Maine annually, and sold in various parts of the world, giving employment to from 8,000 to 10,000 persons.

FARM AND HOUSEHOLD.

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

Egg Stains from Silver. — To remove stains on spoons caused by using them for boiled eggs, take a little common salt, moisten between the thumb and finger, and briskly rub the stain, which will soon disappear.

Durable Cement for an Aquarium.—Take equal quantities of flowers of sulphur, powdered sal ammoniac, and iron filings, and mix thoroughly with good, boiled linseed oil. Add a sufficient quantity of pure white-lead to form a mass of the consistence of molasses.

Wall Ornaments.—Very pretty brackets, baskets, and letter-receivers are made from cigar-lighters, and trimmed with various shades of worsted, or those fancy pictures which are so plentiful. A little ingenuity is required to arrange them into pretty forms. They are very tasty, and give a pleasant look to the wall of a room. Pretty frames for small pictures are made of these in fancy styles.

Good Horses.—Good trotters are generally fast walkers, and fast walking is an important trait on the farm. There is no use of being two hours doing a piece of work when it can just as well be done in one hour. It is bad economy to have a poor scrub of a horse on a farm that soon tires out, when you can have a game, fast-walking horse, that don't know what it is to tire, and that can get over more ground in one day than a scrub can get over in two days.—*Colman's Rural World.*

Marking Steel.—In order to mark your name or any device upon steel pursue the following method: Warm the steel slightly, and then rub it with wax or hard tallow until a film or thin coat of wax gathers over it. Then scratch your name or any device you may desire to impress upon the steel on the wax or tallow, taking care to cut through to the steel. Then pour into the marks or scratches a little nitric acid, which will quickly eat into the steel, marking it as desired. Then wipe off both wax and acid with a hot, soft rag and the steel will be marked.

Sharpening and Cleaning of Used-up Files.—Remove, by rinsing in water, all particles of dirt that will yield to this agent; then for five minutes place the file in a mixture of one part of nitric and one part of sulphuric acid to seven parts of water. Very fine and little used files, should not remain over three minutes in the acid bath. Immediately after removing from the bath, wash the file repeatedly in clear cold water. To neutralize the last traces of acid, dip into lime-water, and quickly dry in a warm place. To prevent rusting, anoint with olive oil and spirits of turpentine mixed in equal proportion.

Protection against Moths.—A practical trial for a good many years has proved the following recipe entirely reliable: Take 1 gill alcohol, 1 gill spirits of turpentine, mix, and dissolve therein 1 oz. of camphor. Keep in a stoppered glass vessel and shake well before using. With this mixture wet some blotting-paper, roll into a ball, and put into the box or drawer where the fur to be protected is kept; the fur should be wrapped in linen. Wardrobes containing clothing should also be provided with these paper balls, the smell of which will drive away and kill all moths, but quickly disappear on exposure to the air. This procedure should be repeated every year.

Bed-Clothing.—As I am constantly traveling, and changing beds about every other night, I have a good opportunity to experiment as to which is the best. I have noticed that there is a vast difference in the warmth and comfort of bed-clothing made in different manners. I frequently sleep in beds where the covering is so heavy and board-like that I feel oppressed all night, and tired in the morning. On other beds the covering is light and soft, and yet very warm. Under such covering I rest very sweetly, and arise in the morning greatly refreshed.

If I am any judge, the cost of material and work in the latter kind is much less than that in the former. From my experience I judge that bed-clothing should be made as light and soft as it can possibly be. A person would certainly find very little warmth and small comfort in sleeping under a carpet. It is too heavy and board-like. There is little warmth in it. But a thick, loosely tied comfortable is a very comfortable thing. At least this is my experience.

D. M. Canright.

News and Miscellany.

—Holland has at least 10,000 windmills, pumping, grinding, etc.

—A million sheep-skins have been used in binding Webster's Dictionary.

—An exploring expedition will start for the North Pole from Sweden next May.

—The government issued in 1877 the enormous number of 689,000,000 letter stamps.

—The Russians are fitting up their vessels to consume mineral oil for fuel instead of coal.

—An iron mine formerly worked by the ancient Phœnicans has been discovered in Syria.

—Less than eight per cent. of the area of this country, it is said, is at present under cultivation.

—Stanley's African expedition cost the New York *Herald* and London *Telegraph* nearly $100,000.

—The Vice-President has announced that no liquor will be sold in the Capitol building at Washington.

—The body of Victor Emanuel was embalmed after immersion in a solution of corrosive sublimate for twelve hours.

—The letters which annually pass through New York City, if placed end to end, would extend across the Atlantic.

—The coronation of Pope Leo XIII. took place the 3d inst. Gen. Grant arrived in Constantinople on the same day.

—Twelve children contracted whooping-cough at a single entertainment in England recently. Two of the number died.

—There are over 2,000 Chinese children in San Francisco, and out of these only 109 go to school, and they to paid schools.

—Prof. G. A. Kœnig, of the University of Pennsylvania, claims to have discovered two new elements in titanium oxide.

—No other nation is so trammeled with caste as the Hindoos, over four hundred different castes being recognized by the government.

—In China, shoes and shirts are rented for use on special occasions to those who are unable to possess those articles of clothing for themselves.

—It is estimated that strikes organized by trades unions have cost the United States in the aggregate not less than three hundred million dollars.

—The silver bill was passed over the President's veto, by both houses, without any further debate. Such precipitate action in Congress is unparalleled.

—Extreme distress has been endured in Constantinople, more than eighty thousand people from different parts of the Turkish Empire having sought refuge there. Mosques, schools, churches, and barracks have been given up for their accommodation. The Sultan has resigned several palaces for the purpose, but means of feeding the hungry are everywhere wanting.

—The State of Texas has purchased 1,400 acres of land near Hempstead, with buildings and improvements, for the State University for colored youth.

—An inventor has incurred the eternal displeasure of the gas monopolists by devising means of making illuminating gas at the nominal expense of thirty cents a ton.

—The Bible production of our time is equal to five every minute of working time. At this rate the press is producing a Bible or New Testament every twelve seconds.

—It has been proposed to redeem the great desert of Western Kansas and Nebraska by irrigation, the water to be obtained by damming up the Arkansas and Platte rivers.

—The soldiers of the Mexican army have been set to work by the government in draining the Mexican Valley, and in improving the roads; which is better than making raids or fighting.

—It is reported that the London Temperance Hospital, under the management of the eminent Dr. James Edmunds, has treated 5,000 patients without alcohol, and with a very unusual degree of success.

—It is stated on authority which cannot be questioned, that seventy millions of people in Northern China are starving. A terrible fire has also recently destroyed a large number of lives in that country.

—A San Francisco party claim to have invented a new battery by which they can supply that city with a beautiful electric light, much superior to the present gaslight, at about one-third the cost of gaslight.

—Capt. Eads has been entirely successful at last with his jetties, by means of which he has made the Mississippi River deepen its channel from eight to twenty-two feet, so that it is now open to ocean steamers.

—The Sultan and Czar have shaken hands, and England is pacified. The Russians are to return home without entering Constantinople. But it is anticipated that dissatisfactions may yet arise, and that the end is not yet.

—Lockport, N. Y., has been successfully heated by steam, conducted from a single boiler through pipes made of a non-conducting material. It is said that the expense is no greater than that heretofore incurred by the use of wood and coal.

—Pope Pius IX. died on the 7th ult., at the age of eighty-five years. The conclave of Cardinals was summoned immediately to choose his successor, and their council terminated on the 20th, in the election of Cardinal Joachin Pecci, who assumes the title of Pope Leo XIII.

—The Cerro de Pasco silver mines of Peru, accidentally discovered in 1630, yielded $600,000,000 worth of the precious metal before they were suspended on account of the almost insurmountable obstacle to working them. When the cel-

brated Oroya railroad from Lima, now in progress, is completed, it will open these mines again to the world. It is expected that this one mountain will produce $100,000,000 worth of silver a year.

—Judge Stuart, of the Supreme Court of Kentucky, has petitioned the Legislature of that State to impose a direct tax on alcoholic drinks. He thinks that a proper rate would be five cents a drink for whisky, gin, and rum, ten cents for brandy and wine, and two cents for malt liquor.

—It is a curious fact that, notwithstanding the sure destruction, sooner or later, of houses built near the base of Mount Vesuvius, the Italians do not cease to build there. The town of Terre del Greco, containing nearly 10,000 inhabitants, is constructed on the lava streams of 1631.

— A Californian has invented a faucet through which water is drawn as cold as ice. Boiling water allowed to run through will be found cool and fit to drink. It is composed of tubes of various sizes arranged one within another, and the interspaces are packed with certain chemicals.

—It may not be generally known that the Shakers not only avoid all stimulating drinks, including tea and coffee as well as alcoholic drinks, but have for thirty years abstained from the use of pork, which may account, in part, for the fact that they are remarkably free from fevers and consumption.

—It is stated that 90,000 lbs. of snails are sent up daily to the Paris markets from the gardens of Polton, Burgundy, Champagne, and Provence, where they are reared for the purpose. The practice of snail-eating was introduced into France from Germany, but has now been discontinued in the latter country.

—A little Vermont girl eight years of age, whose father was a physician, wrote the following as her first essay :—

"There was a little girl, and she was very sick ;
She sent for my papa, and she died very quick."

—Cleopatra's Needle, the famous Egyptian obelisk, has arrived in England at last, having passed in safety the Bay of Biscay, and the English Channel. It is said that Mr. Dixon, who devised the novel method for transporting the obelisk, will soon undertake the task of bringing a similar monument to this country for erection in New York City.

Boston's Big Gun.—Boston is interested in a 50-ton gun, the heaviest piece of ordnance ever cast on this side of the Atlantic, and just completed for the government by the South Boston Iron Company. It has taken eight months in the casting, is 24 feet long, 56 inches in diameter at the breech, and of 12-inch rifle bore. It is intended to throw a projectile weighing 750 pounds, with a 140-pound charge of powder, seven miles at a low elevation, and with force enough to penetrate at a mile and a half a 15-inch armor plate.

Literary Notices.

Detroit Lancet. Detroit : E. B. Smith & Co.

This is one of the ablest medical journals of the West. It is printed in good style, and is usually full of interesting matter. The present number contains, among other valuable articles, a very interesting paper on "The History and Etiology of Diphtheria," by Amos Crosby, M. D., which was read before a recent meeting of the Calhoun Co. Medical Association. Dr. Crosby shows very clearly that diphtheria is in a large measure a local disease. The journal also contains a very full report of the proceedings of the Society at its last meeting.

Young Scientist. New York.

The second number of this new journal has made its appearance, and it gives promise of a successful future. It certainly cannot fail to meet with a warm reception from the hosts of young people who are becoming interested in scientific subjects if succeeding numbers equal the present in interest.

SEASONING.

—A landlord asked of a newly-arrived boarder, "Does smoking offend you ?" "Not at all, sir." "I am glad to hear it, as you and your chimney are given to the practice."

—"Vill you dake someding ?" said a German teetotaler to a friend while standing near a tavern. "I don't care if I do," was the reply. "Vell, den, let us dake a valk."

—An editor wrote : "We have received a basket of strawberries from Mr. Smith, for which he will receive our compliments, some of which are four inches in circumference."

—Cordial but equivocal mamma : "Look, Cissy, here is the dear doctor coming. What a favorite he is ! See, even the little chickens run to meet him." Cissy : "Yes, ma ; and the little ducks cry, 'quack, quack !'"

The Reason Why.—At a renting of pews in a Chicago church there was hot competition for one of the pews, and the bids ran up to a large sum. It was finally knocked down to Brother B. "Why were you so anxious to get that particular seat ?" he was asked by Brother C. "Why ? Because it's just next to Brother M.'s, he replied. "Well what of that ?" returned the other. "Why," rejoined Brother B., "M.'s as bald as a jug, and he draws the flies from everybody around him. I made up my mind to get a pew near him this year, for if there's anything I hate it's to be pestered with flies when I'm—when I'm—listening to a good sermon."

Items for the Month.

☞ The delay in the issue of this number has been caused by the crowd of necessary business resulting from a special meeting of the stockholders of the Sanitarium held March 1–4. We have spared no effort to avoid the unpleasant delay, but were compelled to postpone the issue of the journal for more than a week beyond the usual time. We are rapidly getting matters settled at the Sanitarium, and hope soon to have more time to devote to the interests of the journal. Trusting our friends will bear with us for a short time longer we will continue to do the best we can under the circumstances.

☞ The new buildings of the Sanitarium are now so nearly completed that a definite time can be fixed for their formal dedication, as announced in a card in another column. During the last year the friends of the institution have looked forward with much anxiety and interest to the time which now draws near. The necessity for the improvements made has become more and more evident as the work has advanced. Indeed, the new buildings, although yet in an unfinished state, are already indispensable ; and during the past winter they have been of the greatest service in sheltering about sixty persons for whom we could not possibly have found room otherwise. The building is now being filled up as the different stories are finished off. The whole upper floor is now occupied, and the third story is partly filled. An army of helpers are busy at work making and putting down carpets, and putting in new furniture. A lot of thirty sets, purchased of Messrs. Buck & Hoyt of this city, is being put in to-day.

☞ The recent meeting of the Calhoun County Medical Association held in this place was largely attended by the physicians of the county. Several interesting cases were brought before the society by different members. In the evening there was a lively discussion of the subject for the meeting, Scarlatina. Some very anomalous and instructive cases were detailed by the older members of the society. Respecting treatment there was a general disposition to favor the cool sponging as the best means of controlling the fever which always accompanies this disease. One of the oldest practicing physicians in the county stated that in *bad* cases of scarlet fever his chief dependence was upon the application of cool water by the sponge or hand.

The nature and objects of the Sanitarium being presented by Dr. Kellogg, there was a general expression of hearty approval of the institution and its objects by the members of the society.

We are afraid that many of our hygienic friends have failed to give the regular profession due credit for the liberality of feeling and real good sense which many of its members really possess.

☞ We are pleased to be able to note that our friends and colleagues, Drs. W. B. Sprague and W. J. Fairfield, have just returned from New York City, where they have been pursuing their studies during the past winter, having just graduated from the foremost medical school in America, Bellvue Hospital College. We predict for both most eminent success in their profession, and are happy that we have in them uncommonly competent, reliable, and faithful assistants.

Drs. Fairfield and Sprague have both been elected members of the Calhoun County and Battle Creek City Medical Societies.

☞ The meeting of the stockholders of the Sanitarium lately held in this city was eminently successful in accomplishing all that was desired. A larger number of shares were represented by holders of shares and certificates of proxy than at any previous meeting, more than 1,000 votes being cast.

The sessions of the corporation were characterized by a very gratifying unanimity of action, and a degree of enthusiasm and interest in the welfare of the institution which was most encouraging to those upon whom the heaviest of the burdens connected with the erection of the new buildings have fallen. The affairs of the corporation were never before in such a prosperous and satisfactory condition.

A CARD.—The Directors of the Medical and Surgical Sanitarium of this city have the pleasure to announce that the formal opening of the new building will take place Thursday, April 5, 1878. Appropriate dedicatory exercises will be held in the forenoon, a general dinner will be given, and the evening will be devoted to entertaining exercises.

The managers and physicians hope to meet at this time many of their old patrons and patients who have been inmates of the institution. It is expected that the occasion will be a very pleasant one.

DIRECTORS OF THE SANITARIUM.

☞ Our agents are doing most excellent work this season. The winter has been unusually mild, and the friends of hygiene have improved the favorable opportunity to prosecute missionary efforts with a very commendable energy,

which has already resulted in the addition of thousands to our subscription list. New names are still coming in so rapidly that we are obliged to print several thousand extra copies of this number to provide for the additions which will be made before another issue.

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