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BIBLE HYGIENE.

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HYGIENE is that "department of medical science which treats of the preservation of health." Life and health are the dearest earthly treasures enjoyed by created intelligences. Health is happiness. Self-preservation is a law of our nature. There is a close connection between mind and matter, brain and stomach. Would thinking men and women enjoy health, be happy, and glorify God, they should make a proper use of those good things provided by our beneficent Creator, designed to secure the highest state of enjoyment in this life, and which will preserve their mental powers in the best condition to honor and glorify God.

Pure food, pure water, pure air, light, proper exercise, proper rest, and sufficient sleep, are necessary to health and the enjoyment of true happiness. The Bible was given for the well-being of man in this life, as well as a rule by which he may attain to immortal life. And the first hygienic rule given was that which defines man's diet. To Adam, God said, "Behold, I have given you every herb bearing seed, which is upon the face of all the earth, and every tree, in the which is the fruit of a tree yielding seed; to you it shall be for meat." Gen. 1:29. "Of every tree of the garden," excepting one, our first parents were to freely eat. Gen. 2:16, 17.

Adam and Eve, in the glory of innocent manhood and womanhood, were the first vegetarians the world ever knew. Adam's meat does not appear to have been the flesh of animals, such as beef, pork, mutton, chicken,

turkey, goose, duck, oysters, clams, lobsters, ham, sausage, souse, pickled pig's feet, mince-pies, and sardines. How strange in Eve to spread her table for her little family out there under the ample shade of the tree of life in the midst of glorious Eden with the flesh of dead animals, salt, pepper, vinegar, catchup and the like. Adam's bill of fare was made up of the wonderful variety of delicious things which grew out of the ground. These were his meat. And we have been surprised to find that the very highest authorities give the word *meat* in the Old and New Testaments the signification it has in the bill of fare given to Adam.

"Meat in the English Bible," says the American Tract Society's Dictionary of the Bible, "usually signifies food." And the statement of William Smith, Classical Examiner of the University of London, in his Dictionary of the Bible, is still stronger. On the word *meat*, he says: "It does not appear that the word *meat* is used in any one instance in the authorized version of either the Old or the New Testament in the sense which it now almost exclusively bears of animal food." Flesh meats did not constitute any portion of the diet of the holy pair in Eden.

It was not the design of God in creation that the life of any living creature should be taken. Death, in man or beast, came in consequence of sin. This whole mammoth custom of taking the life of God's creatures to sustain human life, wherever it may be practiced beneath the sun, is simply the fruit of transgression. And after the fall, and the expulsion from Eden, so far as the Sacred Record is concerned, there is no permission given to use flesh of any kind for food till after the

flood. Then the use of flesh as food became a matter of necessity.

The waters of the flood were upon the earth, and Noah was in the ark with closed doors, one year and ten days. Compare Gen. 7:11, 12, and 8:14. By this time, we may safely conclude, the patriarch's stock of provisions was low. And the desolated earth could afford none until it should be produced from the seed preserved in the ark. In this state of things God said to Noah, "Every moving thing that liveth shall be meat for you, even as the green herb have I given you all things." Gen. 9:3. Up to this time, during a period of 1656 years, more than one-fourth of the time since creation, man's diet was the "green herb," or that which grew out of the ground. But now, in the absence of such food, he is permitted to subsist, very largely at least, upon flesh, until the earth should bring forth again the proper food for man.

And, certainly, judging from the Sacred Record, that was a time of remarkably good health. During the long period of 1656 years of vegetarian life, no mention is made of the sickness and death of children, of feebleness in youth or at middle age, or of fevers, dyspepsia, gout, or consumption. All lived, in the full enjoyment of health, nearly one thousand years, until the weary springs of life stood still. Obituary notices of that time do not mention local diseases, which in our day are caused by the breaking down of certain organs of the system, while others remain strong, resulting in lingering sufferings, and agony in death. No, they mention the great length of human life, and its cessation, as follows:—

"And all the days that Adam lived were nine hundred and thirty years, and he died."

"And all the days of Seth were nine hundred and twelve years, and he died."

"And all the days of Enos were nine hundred and five years, and he died."

"And all the days of Cainan were nine hundred and ten years, and he died."

"And all the days of Mahalaleel were eight hundred ninety and five years, and he died."

"And all the days of Jared were nine hundred sixty and two years, and he died."

"And all the days of Methuselah were nine hundred sixty and nine years, and he died."

"And all the days of Lamech were nine hundred seventy and seven years, and he died."

We would here notice in God's ample provision for the happy existence of man, his glorious surroundings. "And out of the ground made the Lord God to grow every tree that is pleasant to the sight." If after the three-fold curse on account of sin—first, that which followed the sin of Adam; second, that which followed the first murder; and, third, the terrible curse of the flood, which left a large portion of the earth's surface in its present broken and barren condition—if after six thousand years of the blighting, dwindling, and deforming influence of the curse, there remains real beauty in the trees, vines, shrubs, and flowers, far more beautiful than the finest work of art, what must have been the grandeur, beauty, and glory, of the trees, the bowers, and the flowers, of Paradise, fresh from the hand of Infinite Wisdom before the transgression!

"The groves were God's first temples, ere man learned
To hew the shaft, and lay the architrave."

The Son of God, in addressing the "innumerable multitude" in the open air pointed his eager hearers to the delicate lily, and declared that "Solomon in all his glory was not arrayed like one of these." The comparative beauty and glory of the works of nature and of art were not a matter of debate with the Son of God. A single lily in his day, from the soil which had long felt the blight and mildew of the curse, possessed more glory than Solomon in all his royal array. If this be a fact relative to a single lily of the field, or the more delicate water lily reposing upon the bosom of the lake, four thousand years from the original glory of Eden, what must have been the delight of our first parents as they stood in Eden before sin had paralyzed their senses, or the curse had touched a single leaf!

Man's employment, as seen in the original design, is also worthy of notice. "And the Lord God took the man, and put him into the garden of Eden to dress it and to keep it." Gen. 2:15. Man was designed for activity in the open light of the sun, and the free air of heaven. These to him constitute the principal joys of existence. The subsequent curse upon Adam was not that he should work; but that his labor should be attended with difficulties. Gen. 3:17-19. Neither was the curse upon Eve that she should bear children; but

in increased numbers and sorrows. Gen. 3 : 16.

The natural habits of the people for the first generations after the fall were evidently conducive to health and longevity. There is no mention of houses previous to the flood. Before and long after that event, many of the people at least dwelt in tents. Artificial habits, hiding within closed doors away from the light of the sun and the invigorating influence of pure air, have well-nigh ruined the race. None should suffer such wretched treatment, only those worthy of death, or the next thing to it, doomed to close confinement in prisons. We admire that simple wisdom which saith, "Truly, the light is sweet, and a pleasant thing it is for the eyes to behold the sun." Eccl. 11 : 7.

Proper exercise in the open air, in the light of the sun, ranks among God's highest and richest blessings to man. This gives form and strength to the physical frame, and, all other habits being equal, is the sure safeguard against disease and premature decay. This, being man's natural sphere, gives buoyancy and strength to thought, and the mind finds its natural balance, free from the extremes resulting from artificial life.

Paul speaks of the patriarch Abraham, in these words: "By faith he sojourned in the land of promise, as in a strange country, dwelling in tabernacles with Isaac and Jacob, the heirs with him of the same promise." Heb. 11 : 9. If Methuselah had been asked, "Why do't you build you a fine house?" his probable answer would have been, "Want of time." But the men of our day, whose physical strength and length of days are hardly a tithe of those of the first sons of Adam, take time to expend their feeble strength in building fine houses, in ornamenting and furnishing them for their last sickness, death, and a fashionable funeral.

When a man of power, patience, and gentleness of spirit, was wanted to lead the oppressed Hebrews from the bondage of Egypt to the goodly land of Canaan, Moses was sent to the plains of Midian to keep the flocks of Jethro, that he might there, as a humble shepherd, be educated to feed and lead the flock of God. And when one was wanted to properly introduce the world's Redeemer, that plainly dressed, temperate man of the wilderness of Judea was selected. "And the same John had his raiment of camel's hair, and a leathern girdle about his

loins; and his meat was locusts and wild honey." Matt. 3 : 4.

"The locust was a fruit, a bean-like pod, with a seed in it similar to the *Carob*, or husk on which the prodigal son fed."—*Butterworth*. "The wild honey, a kind of gum."—*Dr. Fore-stall*. If these authorities are reliable, vegetarianism takes the place of the Baptist's supposed grasshopper diet.

It is true that artificial and, in almost everything, wrong habits of life have so far perverted and enfeebled our natures that we are illy prepared to enter at once upon the natural habits of the holy and healthy men of old. And it is vain to talk of regaining all that has been lost in size, strength, health, and length of days. Something may be gained. But for this we earnestly plead, that the spirit of reform in habits of life shall so take hold of the minds of sensible men and women, that the rapid downward tendency may be checked.

This tendency to feebleness and premature decay in American women, is too evident to admit of a doubt. And to no one thing is this so clearly traceable as to artificial habits within closed doors. The native women of our country are as strong as the men. And why? Simply because their habits are so nearly like those of the men, without ceiled houses. This is also true in a great degree of European women who labor, side by side with their husbands, in the field, in the light of the sun, in the open air.

Every room, especially sleeping apartments, in every house, should be ventilated every day and every night in the year. The degree must be governed by the temperature of the atmosphere without, and the ability of the inmates to endure. And every man, and every woman, and every child, should also enjoy as much of God's good sunshine as the circumstances will possibly admit. Press to the light, friends; press out into the free air of heaven, and let those grand medicines, wisely mixed by our gracious God, into your houses, that they may make you strong, healthy, and happy.

—Dr. Lundy, of Detroit, finds that one-tenth of all the students in attendance at the high school in that city have become near-sighted from deficient light and poor ventilation. Here is a field for architects and sanitarians.

BREAD.

THE goddess Ceres was supposed to preside over all kinds of grains or cereals, and Pan is mentioned by a few authorities as the inventor and god of bread, although we find very few who indorse that theory. The Greeks, however, deified all discoveries; but bread was known by the Chaldeans, Egyptians, and Israelites, long before these Greek traditions were known. The word bread signifies something "brayed" or pounded in a mortar; thus brayed wheat, or wheat bread; brayed oats, or oat bread. It was formerly spelled brede. Dough is derived from the Anglo-Saxon word "deawian," to wet or moisten. So dough, or dow, means wetted, and therefore bread, or brayed corn or grain, by being moistened or wet, becomes dough. Loaf comes from the Anglo-Saxon word, "hlifian," to raise or lift up. So bread or brayed corn, being wetted, becomes dough, and leaven or yeast being added, it becomes loaf, or raised bread. Even after grains of various kinds were cultivated in a rude way and used for food, the art of making or baking bread was unknown to many nations, and the grains, peas, and beans, were made into porridge, no other use of this meal, after being ground in their rude mills, being known. It was long before the Romans had learned the art, except only so far as to make unleavened bread or cakes.

Bread made into loaves, that is, raised bread, is to this day seldom seen in Northern Europe and Asia, except among the rich or the nobility. In the Swedish towns and cities bread or loaves are common, but not among the lower classes and the country people. At one time the captain of an English vessel requested a baker of Gottenburg to bake a large quantity of loaves or raised bread. The baker refused to undertake an order of such magnitude, saying it would be quite impossible to dispose of such an immense order, until the captain agreed to carry off with him and pay for all that were not disposed of during the time his vessel was in harbor.

At first, as bread from grain began to find its way among many different nations, the Asiatics introduced the custom of sweetening all kinds of bread, and the Romans received their first ideas of making bread from them,

and carried some of their bakers to Rome to introduce their art among their people; but even then most of the bread used in all countries was unleavened.

At what period fermented—leavened or raised—bread was first discovered, or by whom, we cannot learn; and for years, even after many kinds of grain were in common use, raising the bread was not understood. It was known to the Israelites, the Egyptians and Grecians, but was not known in Rome until two hundred years before the Christian era. They first learned of it during their war with Macedon. At the close of that war a few of the Grecian bakers were persuaded to go to Rome and practice their art among that people. The bakers were highly esteemed.

In the reign of Augustus, that Emperor caused many bake-houses to be erected, and placed them under the control of the Grecian bakers. Many privileges were granted them, and the public granaries were placed in their charge. From Rome this art found its way into Gaul; but its progress in the northern parts of Europe was very slow.

There is reason to believe that some of the ansient people had also a little knowledge of the manufacture and general use of yeast—leaven being the nearest approach to it—and that in its crudest forms. But any such innovation on old customs, or invention, must run through a long period before it will be accepted and adopted universally. It was not until nearly the close of the seventeenth century that yeast became commonly, almost universally, used throughout Northern Europe. It was about this time that the bakers of Paris brought yeast from Flanders as a substitute for leaven. But even then it was not accepted without a long and tedious struggle. Although none could deny that the bread made with the help of yeast was very greatly superior to any before seen in Paris, the French Government forbade the use of yeast because the College of Physicians affirmed, in 1688, that it was injurious to the health. But this prohibition was evaded. The yeast was made in Flanders and put into sacks until the moisture was all drained off, when it was brought dry into Paris privately. The superiority of yeast-made bread was soon recognized, the learned assertions of the medical

faculty were forgotten, and as the bakers continued to make the bread without attempting discussion, the laws against the use of yeast very soon passed out of mind, and no one seemed inclined to remind the law-givers of them; and from this, yeast bread found its way at last into parts of every country.—*Christian Union.*

CAUSES OF DYSPEPSIA.*

BY THE EDITOR.

HOW MUCH SHOULD A PERSON EAT?—Hundreds of times have we been asked this question; but we have never been able to give any other answer than might be suggested by the common sense of the questioner without medical assistance. The only reply that can be made to this question is, just so much as the system needs and the digestive organs can digest. In general, an individual may take as much food as he can digest; but often there are conditions in which he cannot digest as much as he really needs. For instance, when an individual is called upon to exert all his energies of brain and muscle, to strain every nerve to its utmost to compass a certain object of great importance, to cope with an emergency, he may be for the time being quite unable to digest sufficient food to make good the waste that must necessarily occur. He will lose flesh and strength under such circumstances; and often a failure of the appetite at such a crisis indicates the inability of the stomach to digest, from the deficient secretion of gastric juice. It is on this account that persons who are for a time called upon to make great exertions often break down their digestion. Thinking that they need abundance of nutriment, which is true, they eat as heartily as when only required to perform their ordinary work, not considering their diminished power to digest and appropriate food, and in a short time find their digestive organs unable to digest well even a small amount of food. We are satisfied that it is in this way that many lawyers, physicians, and other professional men, break down. If, when called upon to do a large amount of extra work, the individual would lessen the quantity of food eaten, instead of increasing it, he would conserve his vital forces

much more than by pursuing the opposite course. When required by the press of business to do extra work, often working for several days in succession with very little sleep, we have been in the habit for several years of limiting the amount of food taken to not more than half the usual allowance, and sometimes to even a less quantity. The result has invariably been all that could be desired; since, although we have often lost several pounds of flesh during an ordeal of this kind, when it is passed, and we return to our usual routine of work, we bring back from the effort our digestion intact, and are able to digest the amount of food necessary for recuperation, so that a few days suffice to restore us to our usual weight, and without loss of either strength or time.

It is evident that the diet of each individual must be regulated in quantity according to his occupation. It must also be adapted to his age. A man engaged in severe physical labor, while he really *requires* less food, may be able to *dispose of* more food than one who labors with equal intensity in some mental pursuit. The body is wasted much more rapidly by vigorous brain labor than by physical exercise. Indeed, it is asserted by our best authorities in physiology, that three hours of severe brain labor are equal in exhausting effects upon the system to ten hours of physical labor or muscular effort. It is evident, then, that a man who works his brain constantly for ten or twelve hours a day really needs more food to sustain his strength than a man who employs his muscles for the same length of time. But, as before remarked, the muscle laborer may be able to *dispose of* more food than the brain laborer, though he *needs* less, since his vital forces are not so completely exhausted by his work. In other words, the occupation of the muscle worker being less exhaustive than that of the brain worker, he can overeat with greater impunity than can the latter. Each should eat but the quantity actually required, if he would enjoy the maximum of health and vigor; but for the man whose vital energies are daily exhausted by mental effort, any excess in eating is certain to be most disastrous. We have examples of great literary men who have been great eaters; but

*"Digestion and Dyspepsia." Good Health Pub. Co.

it is a noticeable fact that these persons, in many instances, while celebrated for their productions, often worked very leisurely, their fame being really more justly attributable to brilliant genius than to great application. In several cases, too, as in that of Charles Dickens, the hours spent in brain labor were chosen from the best of the day, many hours being spent in physical exercise, by which means the integrity of the digestive organs was maintained much better than would otherwise have been the case. In not a few instances, too, those great literary men who were noted eaters died early, their physical stamina being exhausted by the double drafts made upon it. Newton, when engaged in the most severe portion of his wonderful labors in demonstrating the law of gravitation by computations respecting the orbit of the moon, confined himself to a spare diet of bread and water.

The amount of food required by an individual, as already intimated, varies at different periods of life, according to the degree of vital activity. In infancy and childhood, when the vital activities are at their highest degree of intensity, when growth and development are to be maintained in addition to supporting the wastes of the system, the demand for food is greater in proportion to the size of the individual than at any subsequent time. In adult life, when waste and repair are about equally balanced, a sufficient amount is needed to make good the daily loss from the various mental, physical, and other vital activities which can only be supported at the expense of tissue. Any larger quantity than this is excess.

In old age, when the assimilative powers are weakened by declining years, the amount of food which can be assimilated by the individual is even somewhat less than is really needed; hence, as age advances, the quantity of food should be gradually diminished. Very many old people break down much sooner than they would otherwise do were they more careful in this regard. When they lay aside their vigorous, active life, they should also curtail the quantity of their food. By this act of temperance, they might preserve intact to a much later period the integrity of

their digestive organs, and so add years to their lives.

In not a few instances, the foundation of dyspepsia is laid by some mechanical injury, as a sprained ankle, a broken limb, or a severe bruise or cut, which requires rest from active exercise for a few weeks. Not considering the fact that much less food is demanded when an individual is not engaged in active labor of any sort than at other times, the individual continues to eat heartily, and soon finds that the digestive organs refuse to do their work from sheer exhaustion. On this account, it should be made a uniform custom to eat lightly on the weekly rest-day. The hearty Sunday dinners in which many people indulge, making the day an occasion of feasting rather than a rest-day, cannot be too much condemned. The custom is without doubt responsible for many other forms of Sabbath-breaking, as no individual can have clear perceptions of right and a quick sense of wrong when laboring under the incubus of an overloaded stomach. For the hearty meal usually taken, it would be well to substitute a light one consisting mostly of fruits and grains. This plan, if pursued, would do away with much of the drowsiness in church of which many people and not a few pastors have abundant reason to complain. The intellect would be very much clearer, and so better able to appreciate the privileges and comforts of religion. The sooner people recognize the fact that stomachs have much to do with religion, and that true religion includes the government of the appetite, and frowns upon abuse of the stomach as well as upon abuse of a fellow-man, the better it will be for both their stomachs and their religion. We are not sure but that many gloomy theological dogmas were born of bad stomachs and inactive livers; and we are very certain that one of the best preliminary steps toward converting a sinner is to reform his stomach.

Each individual must be to a considerable extent his own guide respecting the exact amount of food to be taken at a given meal. If the appetite has been so long abused that it is no longer a safe guide, then reason must rule. The individual should, at the beginning of the meal, determine just how much

he will eat, and when the specified quantity is taken he must resolutely stop eating, leaving the table, if necessary, to escape temptation. The practice of serving fruit, puddings, nuts, confectionery, and tid-bits of various kinds as "dessert," is a pernicious one. In the first place, it is an inducement to overeat, since it is quite probable that enough has been eaten before the dessert is served. If the articles offered are wholesome, they should be served and eaten with the meal, as a part of it, and not at its close, in addition to the meal. Furthermore, it is generally the case that most of the articles served at dessert are wholly unfit to be eaten at any time, and so should be discarded. Dessert is really an ingenious device to induce people to make dyspeptics of themselves by eating more than they need.

A man who desires to be at peace with his stomach should learn to "stop when he has enough," no matter how strongly he may be tempted to do otherwise. There is more truth than poetry in the old Scandinavian proverb, "Oxen know when to go home from grazing; but a fool never knows his stomach's measure." But experience, a dear school, ought after a time to teach the most unobservant person the amount of food his stomach will bear without discomfort, and without injury. If a person in fair health finds that after eating of wholesome food he is troubled with fullness of the stomach, dullness over the eyes, "sour-stomach," eructations, or flatulence, he may be very sure that he is eating too much, and he should continue to diminish the amount taken at each meal until the symptoms mentioned disappear.

It is to bear in mind that the danger is pretty much all on the side of overeating, the liability of eating too little being very small indeed. The tendency to overeat will be greatly lessened by eating very slowly, masticating the food thoroughly, and eating only the simplest articles. One who has never made the experiment will be astonished to see how little food is really required to support life. We have lived for months on an average of seventeen ounces of solid food per day, gaining flesh the whole time. Cornaro, an Italian nobleman, lived for many years on twelve ounces of solid food per day.

By solid food is meant that from which the water has been entirely evaporated.

Numerous experiments by Letheby, Parkes, and many other scientists, together with a careful study of the dietaries of various classes of artisans, laborers, professional men, etc., show that life can be well supported upon twenty-two ounces of carbonaceous and three ounces of nitrogenous food. Prize-fighters usually take but twenty ounces of solid food, and numerous classes of individuals subsist upon a considerable less quantity.

The following table gives the amount of solid matter in different articles of food according to Letheby:—*

	PER CENT.		PER CENT.
Bread,	63	Dates,	58
Wheat Flour,	85	Grapes,	20
Barley Meal,	85	Gooseberries,	15
Oatmeal,	85	Currants,	15
Rye Meal,	85	Whortleberries,	23
Indian Meal,	86	Strawberries,	13
Rice,	87	Raspberries,	16
Buckwheat,	87	Blackberries,	14
Peas,	85	Bananas,	26
Potatoes,	25	Almonds,	96
Carrots,	17	Lean Beef,	28
Cabbage,	11	Lean Mutton,	28
Farsnips,	18	Veal,	37
Turnips,	9	Poultry,	26
Sweet Potatoes,	33	Fish,	22
Apples,	15	Oysters,	20
Pears,	16	Eggs,	26
Plums,	20	Cream,	34
Cherries,	20	New Milk,	14
Peaches,	15	Skim Milk,	12
Apricots,	18		

By reference to the above table, it will be possible to ascertain with ease the amount of nutriment consumed in any given quantity of different varieties of food. It is perhaps worthy of remark that the grains, as shown in the above table, are by far the most nutritious of all the various classes of food. It will be observed, for instance, that oatmeal, Indian meal, and peas contain three times as much real nutriment as lean beef. When economy must be considered in the selection of food, this is a very important consideration. This becomes doubly evident when we consider that it takes eleven pounds of vegetable food, including Indian meal, dry hay, etc., to make one of beef. Thus it appears that as nutriment one pound of oatmeal at first-hand, is as valuable as thirty or more pounds taken at second-hand, through the medium of beefsteak.

* "Letheby on Food."

AN ANCIENT SATIRE ON LONG DRESSES.

[A CORRESPONDENT sends us the following "Satire on Syde Tails," or long dresses, written and dedicated "to the King's grace" in 1538, from which it appears that the nuisance of long skirts is not of recent origin.—Ed.]

Sir, though your Grace has put great order
Both in Highland and in Border,
Yet make I supplication
To have some reformation
Of one small fault which is not treason,
Though it be contrary to reason.
Sovereign, I mean of their syde tails
Which through the dust and dubs trails
Three quartes long behind their heels,
Express against all commonweals.
Though bishops and their pontificals,
Have men to bear up their tails,
For dignity of their office;
Right so a queen or an empress;
Howbeit they use such gravity,
Conformant to their majesty,
Though their robe-royals be upborne.
I think it is a very scorn,
That every lady of the land
Should have their dress so syde trailand;
Howbeit they been of high estate,
The queen they should not counterfeit.
Wherever they go it may be seen
How kirk and causeway they sweep clean,
But I have most into despite
Poor claggocks (draggetails) clad in raplock white,
Which have scarce two marks for their fees,
Will have two ells beneath their knees.
Kittock that cleckit (hatched) was yestreen (yesterday even);
The morn will counterfeit the queen:
And Moorland Meg that milked the cows,
Clogged with clay above the hous, (houghs)
In barn or byre she will not bide,
Without her kirtle tail be syde.
In burghs, wanton burgess wives
Who may have the sydest tails strives,
Well bordered with velvet fine
But follow them it is a pyne:
In summer, when the street dries,
They raise the dust above the skies;
None may go near them at their ease
Without they cover mouth and neese (nose).
I think at most pain after a rain,
To see them tuckit up again;
Then when they step across the street,
Their foldings flap about their feet;
They waste more cloth within few years,
Than would clothe fifty score of freirs.
Accordingly I will conclude,
That of syde tails can come no gude
More nor than may their ankles hide,
The remanant proceeds of pride,
And pride proceeds of the devil,
Thus always they proceed of evil.

—Vice has more martyrs than virtue.

CANDY FOR CHILDREN.

You know that the stomach of a child is very delicate, very sensitive—quite as much so as the eye; it will bear milk and so will the eye; but if you add to the milk pepper, the eye becomes red, and so does the stomach. Cold water is grateful to the eye, to relieve this inflammation, and there is the same demand for water to quench the flame in the stomach. In such a stomach healthy digestion ceases; the appetite fails; the blood becomes poor and watery, and the tissues are all impoverished. It is not the sugar that does the harm, for pure sugar is healthful; it forms part of the milk of the infant, and enters largely into some of our best vegetables. It is the sugar mixed with various other articles, often poisonous, and the process of manufacture, that render candy so injurious. You mean to do well by your child, but you are slowly and certainly effecting her ruin. At this critical period of her life, when, for proper development and growth, she needs a large supply of nourishing and easily digested food, you give her these detestable compounds of burnt sugar and poisons, which not only slowly poison her system, but, worst of all, deprive her of appetite and even of the power of digestion. If you persist in this course it is not difficult to predict the result; the chances that your child will reach womanhood will be diminished ten-fold; if she reach adult years, it will not prove adult life in her case, but rather a dwarfed and imbecile maturity. Her certain inheritance will be dyspepsia, a morbid appetite for crude and indigestible articles, and chronic and incurable diseases, which will render her irritable and peevish, and lead to a premature old age and death in mid-life.—*Hearth and Home.*

—Notwithstanding the constant complaints and warnings against oleomargarine butter—that is, butter made from suet—the manufacture of this artificial butter continues to increase. A reliable authority states that 100,000 pounds of suet are used in New York City for this purpose every week.

—Fifteen thousand women are brought to the work-house, in New York City, every year through whisky.

TOBACCO POISON.*(Nicotiana Tabacum.)*

CHEMISTS, botanists, and physicians unite in pronouncing tobacco to be one of the most deadly poisons known. No other poison, with the exception of prussic acid, will produce death so quickly, only three or four minutes being required for a fatal dose to produce its full effect. It belongs to a class of plants known as the *volanaceæ*, which includes the most poisonous of all species of plants, among which are *henbane* and *bella-donna*. There are more than forty different varieties of the plant, all of which possess the same general properties, though varying in the degree of poisonous character.

Nicotine.—The active principle of tobacco, that is, that to which its narcotic and poisonous properties are due, is *nicotine*, a heavy, oily substance which may be separated from the dried leaf of the plant by distillation or infusion. The proportion of nicotine varies from two to eight per cent, Kentucky and Virginia tobacco usually containing six or seven per cent. A pound of tobacco contains, on an average, 380 grains of this deadly poison, of which one-tenth of a grain will kill a dog in three minutes. A case is on record in which a man was killed in thirty seconds by this poison.

A Pound of Tobacco Will Kill 300 Men.—The poison contained in a single pound of tobacco is sufficient to kill 300 men if taken in such a way as to secure its full effect. A single cigar contains poison enough to extinguish two human lives if taken at once.

The essential oil has been used for homicidal purposes. Nearly thirty years ago it was employed by the Count Bocarmé to murder his brother-in-law for the purpose of securing his property.

The Hottentots use the oil of tobacco to kill snakes, a single minute drop causing death as quickly as a lightning stroke. It is much used by gardeners and keepers of green-houses to destroy grubs and noxious insects.

A number of instances are recorded in which instant death has been produced by applying a little of the oil from the stem or bowl of an old pipe to a sore upon the head or face of a small child.

Poisoning through the Skin.—The poison

of tobacco is so potent and violent in its action that even the external application of the moist leaves to the skin is sufficient to produce most serious symptoms. If a cigar be unrolled and the leaves composing it be applied over the stomach, great nausea will be produced in a very short time. This method has been used to induce vomiting. Cowardly soldiers have been known to place tobacco leaves under their arms just before a battle, for the purpose of producing sickness.

Some years ago a man was detected in attempting to smuggle a quantity of tobacco by placing the leaves next to his skin. The nearly fatal symptoms which followed led to the discovery of the smuggler.

Deadly Vapor.—If tobacco is poisonous when applied to the skin, it is doubly so when inhaled. The smoke of tobacco contains, in addition to *nicotine*, several other poisons, the chief of which are *pyridine*, *picoline*, *sulphuretted hydrogen*, *carbon di-oxide*, *carbonous oxide*, and *prussic acid*, all of which are fatal poisons when received into the system in any other than the most minute quantities. Thus, it is not to nicotine alone that the evil effects of smoking are due, but to all of these poisons combined.

Birds, frogs, and other small animals, die when exposed to the fumes of tobacco in a confined space.

Poisoning through the Lungs.—Inhalation is the most speedy way of getting any volatile poison into the system. The reason of this is obvious when the fact is made known that the lungs present a mucous surface fourteen hundred square feet in extent, every inch of which is in the highest degree capable of absorbing gaseous substances brought in contact with it. This membrane is of the most marvelously delicate character, being of such exceeding thinness that it forms scarcely any obstacle to the passage of gases which enter the lungs by respiration. Just underneath this delicate membrane passes all the blood in the body, or an amount equivalent to the whole volume of the blood, once every three minutes. The vapory poison inhaled by the tobacco-smoker is not simply taken into the mouth and then expelled, but it penetrates to the remotest air-cells, and spreads itself out over the whole of the immense extent of

membrane stated. Thus it is plain that the blood of the smoker is literally bathed in the narcotic fumes drawn from his pipe or cigar.

So readily does the system receive the poison of tobacco in this way, it has been repeatedly observed as a fact that persons who are engaged in the manufacture of cigars often suffer much from the characteristic effects of *nicotine* poisoning.

When tobacco is applied to the mucous membrane, as in chewing and snuff-taking, its poisonous elements are absorbed in essentially the same manner as when it is applied to the skin, but much more rapidly. In chewing, considerable quantities are also absorbed through the stomach, being swallowed with the saliva.

Poisonous Effects of Tobacco.—Very few users of the weed need to have a description of the effects of a moderate degree of poisoning with tobacco. The giddiness, nausea, and deathly sickness which follow the first attempt to use the poisonous drug are indubitable evidence of the poisonous character of tobacco, which evidence is confirmed by the difficulty—in many cases very great—experienced in becoming accustomed to its use. In severe cases of poisoning, violent vomiting and purging, vertigo, deathly pallor, dilatation of the pupil, a staggering gait, disturbed action of the heart, interference with respiration, and in extreme cases insensibility and syncope are commonly observed. Only a very small quantity is necessary to produce these symptoms in a person not accustomed to the use of the drug; but in persons who have accustomed their systems to the poison, a much larger quantity is required.

Why all Smokers do not Die of Tobacco-Poisoning.—It is often objected that while chemistry and scientific experiments seem to prove that tobacco is a powerful poison, the experience of thousands of persons disproves the theory of its poisonous character, since if it were so intense a poison as described, cases of death from tobacco-poisoning would be much more frequent.

To this objection we answer, 1. One reason why so few persons are reputed to die of *nicotine* or tobacco-poisoning, is the wonderful faculty the system possesses of accommodating itself to circumstances. Through this

means the worst poisons may by degrees be tolerated, until enormous doses can be taken without immediately fatal effects. Corrosive sublimate, strychnia, belladonna, and many other poisons, may be thus tolerated.

2. In our opinion the majority of tobacco-users do die of tobacco-poisoning. Death as surely results, ultimately, from chronic as from acute poisoning, though the full effects are delayed, it may be, for years. A man who dies five or ten years sooner than he should, in consequence of tobacco-using, is killed by the poison just as truly as though he died instantly from an overdose.

The symptoms of chronic tobacco-poisoning cannot be better stated than in the following summary by Dr. B. W. Richardson, one of the highest medical and scientific authorities of England:—

“Smoking produces disturbances—

“*a.* In the blood, causing undue fluidity and change in the red blood corpuscles.

“*b.* In the stomach, giving rise to debility, nausea, and in extreme cases, sickness;

“*c.* On the heart, producing debility of that organ, and irregular action;

“*d.* On the organs of sense, causing, in the extreme degree, dilatation of the pupils of the eye, confusion of vision, bright lines, luminous or cobweb specks, and long retention of images on the retina, with other and analogous symptoms affecting the ear, viz., inability clearly to define sounds, and the annoyance of a sharp, ringing sound like a whistle or a bell;

“*e.* On the brain, suspending the waste of that organ, and oppressing it if it be duly nourished;

“*f.* On the nervous filaments and sympathetic or organic nerves, leading to deficient power in them, and to over-secretion in those surfaces—glands—over which the nerves exert a controlling force;

“*g.* On the mucous membrane of the mouth, causing enlargement and soreness of the tonsils—smoker's sore throat—redness, dryness, and occasional peeling off of the membrane, and either unnatural firmness and contraction, or sponginess of the gums;

“*h.* On the bronchial surface of the lungs when that is already irritable, sustaining the irritation and increasing the cough.”

The above quotation is of peculiar force, coming as it does from a man who is not only well qualified to speak on the subject from his high scientific attainments and large experience, but is peculiarly well fitted to speak authoritatively, and certainly without prejudice against tobacco, himself being, from force of long habit, a smoker.

Dr. Richardson has elsewhere asserted that the injury done to the blood corpuscles by *nicotine* can be readily detected in the blood of an old smoker by examination with the microscope.

The fact is established beyond the possibility of successful controversy, that tobacco is a poison, deadly in large doses, pernicious and harmful in all doses. It taints the breath, ruins the digestion, obliterates taste and smell, ruins the blood, oppresses the brain, depresses the heart, irritates the nerves, wastes the muscles, obstructs the liver, dims the vision, stains the skin, and deteriorates and contaminates every organ and tissue with which it comes in contact in the body. Its influence is to lessen vitality, to benumb the sensibilities, to shorten life, *to kill*. J. H. K.

CIRCULATION OF THE BLOOD.

AMONG the most interesting sights to be viewed with the microscope is the circulation of the blood in a living frog's foot. The membrane is stretched by means of clips upon the stage of the instrument, and when the proper lenses are applied the movement of the blood may be observed rushing along with force like a mill stream.

Hitherto, says the *Nineteenth Century*, except in the case of Perkinje's experiment, in which an observer can see the circulation in his own retinal blood-vessels, the evidence of circulation in the human subject has been entirely circumstantial, derived from the facts of structure of the circulatory organs, and from the manner in which the blood flows from several arteries and veins. But by means of a simple arrangement, invented by Dr. C. Hüter, of Greifswald, it is now possible to witness the actual flow of blood in the blood-vessels of another person, and that with sufficient accuracy to detect any abnormality in the circulation, and so to obtain invaluable assistance in the diagnosis of disease.

In Dr. Hüter's arrangement the patient's head is fixed in a frame, something like that used by photographers, on which is a contrivance for supporting a microscope and lamp. The lower lip is drawn out, and fixed, by means of clips, on the stage of the microscope, with its inner surface upward; a strong light is thrown on this surface by a condenser, and the microscope, provided with a low-power objective, is brought to bear upon the delicate network of vessels, which can be seen in the position indicated even with the naked eye.

The appearance presented is, at first, as if the vessels were filled with red injection. But by focusing a small superficial vessel the observer is soon able to distinguish the movement of the blood stream, rendered evident by the speck-like red corpuscles, the flow of which, in the corkscrew-like capillaries, is said by Hüter to be especially beautiful. The colorless corpuscles are distinguishable as minute white specks, occurring now and again in the course of the red stream.

To Cure Sleep-Walking.—A correspondent of the *New York Evening Post*, commenting on a recent instance in which a sleep-walker was killed by falling from the roof of the house, says: "Such accidents can be easily prevented by laying upon the carpet by the side of the sleep-walker's bed a strip of sheet metal, iron, zinc, or copper, so wide and long that when he puts his feet out of the bed they will rest upon the metal. The coldness felt will wake him thoroughly, and he will go to bed again. A friend broke up the habit of sleep-walking in his son by placing a strip of wet carpet by the side of his bed."

—The London *Fun* reports the following conversation between a young miss from the city and a country woman:—

Mrs. Stubbs—"See, Missie, I be a-drawin' some water for your bath."

Little Missie—"Do you draw the water for your bath out of the same well, Mrs. Stubbs?"

Mrs. Stubbs—"Lawk, Missie, no; I be a matter of fifty years old, an' I never yet heerd tell of anybody 'avin' a bath in these parts 'cept when you Lannon gentry comes down."

LITERARY MISCELLANY.

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

GOOD IN THINGS EVIL.

CEASE, fond caviler at wisdom, to be satisfied that everything is wrong:
Be sure there is good necessity, even for the flourishing of evil.
Would the eye delight in perpetual noon? or the ear in unqualified harmonies?
Hath winter's frost no welcome, contrasting sturdily with summer?
Couldst thou discern benevolence, if there were no sorrows to be soothed?
Or discover the resources of contrivance, if nothing stood opposed to the means?
What were power without an enemy? or mercy without an object?
Or truth, where the false were impossible? or love, where love were a debt?
The characters of God were but idle, if all things around him were perfection;
And virtues might slumber on like death, if they lacked the opportunities of evil.
There is One all-perfect, and but one; man dare not reason of His essence:
But there must be deficiencies in Heaven, to leave room for progression in bliss:
A realm of unqualified *best*, were a stagnant pool of being;
And the circle of absolute perfection, the abstract cipher of indolence.

—Tupper.

THE WORK OF PARENTS.

BY MRS. E. G. WHITE.

PARENTS, in disciplining and training the minds of their children, are engaged in a grand and noble work. But too few realize the importance of retaining, as far as possible, their own youthful feelings, and not becoming harsh and unsympathizing in their nature. God would be pleased to have parents mingle the graceful simplicity of a child with the strength, wisdom, and maturity of manhood and womanhood. Some never had a genuine childhood. They never enjoyed the freedom, simplicity, and freshness of budding life. They were scolded and snubbed, reproved and beaten, until the innocence and trustful frankness of the child was exchanged for fear, envy, jealousy, and deceitfulness. Such seldom have the character-

istics that will make the childhood of their own dear ones happy.

Parents should never hurry their children out of their childhood. Let the lessons given them be of that character which will inspire their hearts with noble purposes; but let them be children, and grow up with that simple trust, candor, and truthfulness, which will prepare them to enter the kingdom of Heaven.

The mother's daily influence upon her children is preparing them for eternal life or death. She exercises a power in her home more decisive than the minister in the desk, or even the king upon his throne. The day of God will reveal how much the world owes to godly mothers for men who have been unflinching advocates of truth and reform,—men who have been bold and brave to do, and who have stood unshaken amid trials and temptations; men who chose the high and holy interests of truth, and the glory of God, before worldly honor or life itself.

When the Judgment shall sit, and the books shall be opened, when the "well done" of the great Judge is pronounced, and the crown of immortal glory is placed upon the brow of the victor, many will raise their crown in sight of the assembled universe, and pointing to their mother say, "She made me all I am, through the grace of God. Her instruction, her prayers, have been blessed to my eternal salvation."

We would refer mothers to Hannah, whose history is traced for our benefit by the pen of inspiration. Her husband was a man of influence and wealth, but he loved and feared God. She was a woman of deep and earnest piety, conscientious and humble,—a woman of prayer and of faith. Their son was a child of promise, given in answer to prayer. His mother called him Samuel, which means, "asked of the Lord."

During the earliest part of his life, she had the molding of his character. She trained him for God, and then, as soon as he was old enough, she proceeded to faithfully fulfill the vow made previous to his birth, that he should be the

Lord's. Taking this precious gift and journeying to Shiloh, she there presents him to Eli that he may minister before him in the house of the Lord all the days of his life. What a sacrifice is this on the part of faithful Hannah. But though separated from him, he is not forgotten. He is the subject of her prayers, and every year she makes him a little coat; and when she comes with her husband to the yearly sacrifice, she presents it to him as a token of her love. With every stitch of that coat she had breathed a prayer that her son might be pure, noble, and true. And she had the privilege of seeing him grow up to youth in favor with God and man, ever humble, reverent, prompt to duty, and earnest in the service of God.

This godly mother did not labor to place the hand of her son in that of the world, that he might follow its customs and practices; but she sought to place his hand in the hand of the Lord, thus connecting him with the Source of all wisdom, goodness, and power. When Samuel shall receive the crown of glory, he will wave it in honor before the throne, and gladly acknowledge that the faithful lessons of his mother, through the merits of Christ, have crowned him with immortal glory.

What a contrast has the pen of inspiration drawn between the life of this holy man and the mournful history of the neglected duty of Eli. While some parents are too severe in dealing with their children, often breaking the twig instead of judiciously bending it, others, like Eli, are too indulgent, and fail to properly restrain them. Parents little realize the harm done by withholding from their children wholesome and needed restraint, and by allowing them to grow up with uncontrolled passions, and selfish, debasing habits. Eli's neglect of duty in this respect was felt by the whole Hebrew nation. The sin of his sons spread like the leprosy throughout the entire camp of Israel; but he did not possess sufficient force of character to restrain them. It was because he did not cultivate this that the Lord condemned him. If he could not have done so, if it had been beyond his power to obtain by exercise those qualities which would make him a wise and faithful father, then the retributive justice of God would not have fallen so heavily upon him. He knew that his sons profaned the house and service of God by their conduct; but he loved

ease, quiet, and peace, more than purity and righteousness.

Eli should have gained control of his sons by gentle firmness; but when this failed, more prompt and severe measures should have been employed. This he refused to do, and God, who doeth terrible things in righteousness, finally took the matter into his own hands, and speedily brought their sinful career to a close by allowing disaster and defeat to come upon them, resulting not only in death to themselves and to their father, but in disgrace to all Israel.

This impressive lesson is given to all parents and guardians of children and youth. If parents have restraining power and fail to exercise it over their children, and if sin is permitted to exist and increase, and they are too indolent or selfish to correct it, they are surely accountable for the evil which results. Selfishness and passion are no trifles. They bring unhappiness to our homes, unhappiness to all with whom we associate, and eternal ruin to ourselves and perhaps to thousands of others.

In the case of Rehoboam, the son and successor of Solomon, we have another example. He was a headstrong, self-willed king; he rejected experienced counselors, claimed tyrannical power, and through his influence the people went into idolatry. The reason is given. His mother was an Ammonite, an idolater. Here the result of Solomon's sin in contracting marriage with heathen women is revealed. Rehoboam received his stamp of character from his mother, and through this one godless woman many of the people of God became idolaters.

The pen of inspiration has traced these things as encouragements and warnings to fathers and mothers. The mother has a power in her hands which she should use to the glory of God. She can build up a noble, virtuous, steadfast character in her children; or she can, by indulgence or by manifesting impatience and passion herself, encourage in them those traits which will prove their ruin. The sphere of the mother may be humble; but her influence, united with the father's, is as abiding as eternity. Next to God, the mother's power for good is the strongest known on earth.

—According to an eminent literary authority, a thoroughly immoral book does not exist in the Welsh language.

WHO ARE "POOR FOLKS" ?

POLLY was a bright and beautiful child, who, with a brother older than herself, carried home the laundry work to her mother's patrons. She was always neatly dressed, and had a happy smile and a cheerful voice.

One day Polly carried home some fine laces to a lady in a hotel. The servant told her the lady was ill, and could not be disturbed, but Polly had had strict orders not to trust her package with any one else; so she ventured to go up stairs.

She stood at the door for a moment, and then tapped very lightly, saying to herself, "If she is asleep that won't wake her, and if she's awake she will answer."

In a moment a low voice asked, "Is that you, Bridget?"

"No, ma'am," replied Polly, putting her lips very close to the key-hole and speaking in a loud whisper, "It's Paulina Brown, that folks call 'Little Polly.' I have a very particular message for you, and I won't disturb you a bit if you will let me in."

The lady could not help saying "Come in," in answer to this modest request.

She was in trouble, and that had caused her a sick headache. She lay there all alone in a darkened room, with no one to care whether she got better or not.

Polly had just come from a bright, sunny room, with a gay rag carpet on the floor and bright flowers growing in the windows; and this room, with its heavy draperies, looked gloomy to her. She went up to the bed and gave her message in a low, soft voice, and then said, "O Mrs. Ball, I'm so sorry for you! You have n't any husband nor little girl to comfort you when you are sick! My mother has father, and Tommy, and me, and the baby. Sometimes when she has her tired headaches I can drive them off just with my own hands and a little bay water. I don't suppose you would let me sit upon your nice bed, and bathe your head, would you?"

"Yes, Polly; I am always glad to have such a tidy little girl near me. You will find bay water in that pink bottle on the bureau," said Mrs. Ball.

While the little, soft hands were passing over her troubled brow, the lady said, "Polly, I think

your family are the happiest 'poor people' I ever met."

"O Mrs. Ball, we're not 'poor people,'" cried Polly, with a queer laugh. "There are three poor families in our house, but we are rich—almost. We were rich once and had half a house, though we're not so rich now, since father lost his arm—but as mother can do up laces so beautifully, we're pretty rich still! We do lots of things to help the poor folks in the house, and other poor folks, too!"

"What can you do for them?" asked the lady.

"Oh, we save Mrs. Crane's coal by letting her steep her tea in our kitchen—days that she can keep warm by sitting in the sun—and we take care of Mrs. Barnes' baby, whenever she gets a day's work, and mother always makes broth enough on Wednesdays to share with some one that's poor."

"Who do you call 'poor folks,' Polly?" asked the lady.

Polly had no definition ready; but after thinking for a moment she replied, "Poor folks are folks that do n't have everything they want."

"Then you have everything you want?" asked Mrs. Ball.

"Yes, ma'am," replied Polly innocently. "We all have Sunday clothes besides our common ones; and we have good things to eat—mother bakes all our bread and pies, herself—and we have a real kitchen to work and eat in—without a bed in it, like poor folks; and we buy a whole ton of coal at once, instead of lots of bushels!"

And so little Polly prattled on in a low, pleasant voice, till the lady really felt better, and said so. "I'll tell you what's another real good thing to drive the rest of it off—air and sunlight—mother never shuts up for a headache," said the little nurse.

Here Polly looked at the bronze clock, and said, "It's time now for the baby to wake up, and I shall have to go as soon as I let in a little of my sun and air; but I'll come in any time when you have the headache and cure you again."

"Thank you, my good little girl; you have almost cured me now," said Mrs. Ball. "In my closet you will find a large paper bag full of oranges; take them home and share them with the 'poor folks' in your house."

The rich little girl ran home in glee to divide the treasures with the less fortunate.

The poor lady lay alone to reflect on the lesson she had just received. She had lost twenty thousand dollars, but she had thirty thousand left; and, instead of being thankful for that, she was bewailing her fate, as if she was next to a pauper! She would still have all the comforts, although a few less of the luxuries, of life; and, as she remembered now, no one but herself would suffer by the change, for she had never helped "the poor folks in the house," nor out of it, as Polly's mother was doing.

"Poor folks," she said to herself, "are folks who have n't everything they want. I have n't that twenty thousand, and I never can have it again. But I can learn to be happy on less, and to share even what I have with others."

A ray of "Polly's sun" peeped in, and a breath of her pure air was wafted toward her; and she rose, saying, "Because I have lost some of my fortune, I need not therefore throw away my health, the best of all my blessings."

In Polly's sense of the word, the poor are often found amid elegance and luxury, and the truly rich in humble dwellings.—*Setl.*

SOME OF THE FOLLIES OF FASHION.

ONE of our exchanges calls attention to a few of the most glaring follies of fashion in the following paragraphs:—

A caricature published in 1840 is still to be found in old collections, which represents a fine gentleman and lady walking hopelessly around a handkerchief which the lady had dropped on the street. Both of them were too tightly laced to be able to stoop to pick it up.

In the first years of this century men, as well as women, strove to exhibit the wasp-like waist, which was held in admiration. Even as late as twenty years ago it was common for a fashionable lady to put on her hat before her corsets, as she could not lift her hands to her head after they were laced. The press and even the pulpit attacked this suicidal folly. It has almost disappeared among educated people.

Women in this country have become familiar in statues and pictures with the ideal forms of beauty which the world in all ages

has admired. They have learned how hideous to an artist's eye is the lean, consumptive waist which was once decreed by fashion.

There are one or two ways, however, in which the fashionable dress of to-day still injures health and deforms the figure. One of these is the high, ungraceful hat perched on the back of the head. An eminent aurist attributes the rapid increase of diseases of the ear to this recent uncovering of the ears by women.

Another is the massing of a heap of unclean, dead false hair upon the back of the head, the heat of which frequently injures the scalp, and produces an affection of the brain.

The most common and ludicrous error is the high-heeled narrow shoe which women not only wear, but put upon their helpless children. The muscles of the instep and foot are completely displaced by these shoes. It is impossible to wear them a year without deforming the foot, displacing the toes, and crippling the muscular power of the leg.

Some time, probably, our women, better educated than now, will learn the beauty of the natural foot and of a free, light step—a charm which few American women (except those with red skins) can boast.—*Youth's Companion.*

Will He Succeed?—In nine cases out of ten a man's life will not be a success if he does not bear burdens in his childhood. If the fondness or the vanity of father or mother has kept him from hard work; if another always help him out at the end of his row; if instead of taking his turn at pitching off, he stowed away all the time—in short, if what was light fell to him, and what was heavy about the work to some one else; if he has been permitted to shirk, until shirking has become a habit, unless a miracle has been wrought, his life will be a failure, and the blame will not be half so much his as that of his weak and foolish parents.

On the other hand, if a boy has been brought up to do his part, never allowed to shirk his responsibility, or to dodge work, whether or not it made his head ache or soiled his hands, until bearing burdens has become a matter of pride, the heavy end of the wood his choice, parents, as they bid him

good-by, may dismiss their fear. The elements of success are his, and at some time and in some way, the world will recognize his capacity.—*Sel.*

FACTS IN HUMAN LIFE.

THERE are about 3,064 languages spoken in the world, and its inhabitants profess more than 1,000 religions. The number of men is about equal to the number of women. The average of life is about thirty-three years. One-quarter die previous to the age of seventeen, and those who pass this age enjoy a felicity refused to one-half of the human species of the earth. To every 1,000 persons, only one reaches one hundred years of life; to every one hundred, only six ever reach the age of sixty-five; and not more than one in five hundred lives to eighty years of age. There are on earth 1,000,000,000 inhabitants; of these, 33,333,333 die every year, 91,824 every day, 3,730 every hour, and sixty every minute, or one every second.

Do it Well.—Whatever you do, do it well. A job slighted, because it is apparently unimportant, leads to habitual neglect, so that men degenerate insensibly into bad working men.

"That is a good rough job," said a foreman in our hearing recently, and he meant that it was a piece of work not elegant in itself, but strongly made and well put together.

Training the hand and eye to do work well leads individuals to form correct habits in other respects, and a good workman is, in most cases, a good citizen. No one need hope to rise above his present situation who suffers small things to pass unimproved, or who neglects, metaphorically speaking, to pick up a cent because it is not a dollar.

Some of the wisest law-makers, the best statesmen, the most gifted artists, the most merciful judges, the most ingenious mechanics, rose from the great mass.

A rival of a certain lawyer sought to humiliate him publicly by saying, "You blacked my father's boots once." "Yes," replied the lawyer, unabashed, "and I did it well." And because of his doing well even mean things, he rose to greater.

Take heart, all who toil! all youths in humble situations, all in adverse circumstances, and those who labor unappreciated. If it be but to drive the plow, strive to do it well; if it be but to wax thread, wax it well; if only to cut bolts, make good ones, or to blow the bellows, keep the iron hot. It is attention to business that lifts the feet higher up on the ladder.

Says the good Book: "Seest thou a man diligent in his business? he shall stand before kings; he shall not stand before mean men."

—*Scientific American.*

HOW TO BE BEAUTIFUL.

YOUNG ladies, do you wish to be beautiful? I think I may venture to assume that much, and proceed to give you a few plain directions for attaining the desired end.

First, a fair, clear complexion is always admired. There is no better way of securing this than by taking a good thorough bath every other day, and a good long walk with a cheerful companion at a regular hour every day. Then you may take a hearty meal of wholesome, substantial food, and be the better for it; but if you omit the bath and walk, every full meal you eat will add to the sallowness of your skin, and the generally unhealthy appearance of your person. If you cannot bathe and exercise, you should eat lightly.

But the loveliest complexion in the world cannot alone make a person beautiful. You must think; think on great, noble, benevolent subjects. Accustom your minds to dive deep, to grapple hard with strong, earnest thought, to plan lofty and holy action. It is thought that chisels out the plainest face into a beautiful piece of sculpture. Some one has well said that "the man who does nothing but eat and drink soon loses the fine lines of his features." It is the expression that beautifies the face. It is the tender look which pity for the suffering and the heavy laden calls up in the instant on the speaking brow and tremulous lip. It is the intelligent lighting up of the whole countenance which the earnest thinker displays when any intelligent subject is introduced. These are elements of beauty which have won the admiration of the world in all ages.

Without them, the fairest face is like that of a painted doll; pretty, and useful to amuse the childish and thoughtless, but scarcely attracting the passing observation of the mature and cultivated.

To have a beautiful face, then, one must have a beautiful soul. There is no cosmetic that can equal this, and it is attainable by even the plainest and poorest. It is "without money and without price."—*Home Magazine*.

A Good Prescription.—A rather eccentric yet eminent physician was called to attend to a middle-aged rich lady who had imaginary ills. After many wise inquiries about her symptoms and manner of life he asked for a piece of paper, and wrote down the following prescription: "*Do something for somebody.*" In the gravest manner he handed it to the patient and left. The doctor heard nothing from the lady for a long time. On Christmas morning he was hastily summoned to the cottage of her Irish washerwoman. "It's not meself, doctor, it's me wrist that's ailing. Ye see, I was afther goin' out into the black darkness for a few bits of wood, when me foot struck this basket. It stood there, like a big mercy, as it was, full of soft flannel from Mrs. Walker. She towld me that your medicine cured her, doctor. So, if ye plaze to put a little of that same on me wrist, I'll be none the worse for me nice present." "It is a powerful remedy," said the doctor, gravely. And more than once in after years he wrote the prescription, "*Do something for somebody.*"—*Sel.*

Fashion Folly.—The *New York Tribune* speaks thus, than which we can say nothing better or more pointed:—

"'Style,' that most vulgar of words and things, has done as much to corrupt the women of America as liquor has. Not only is it the cause of financial downfall, but modesty, honesty, decency, are sacrificed to it. Fashion now publishes even the rules for 'first communion dresses,' and sets forth the pipings and coiffures in which an innocent girl may properly approach her God. There is nothing so holy that it is not made subservient to it. It is not the wealthy mother

alone who vitiates her child's mind by this worship of folly, but the mechanic's wife, the poor seamstress whose aim is to 'push her daughter on in society,' to give her stylish dresses instead of a modest heart, a clean mind, and a God-fearing soul. The moral training which such mothers neglect is supplied by hot-pressed sensational juvenile literature, and the reports of foul scandals in the daily newspapers."

The Courtesies of Life.—Wm. Wirt's letter to his daughter on the "small, sweet courtesies of life," contains a passage from which a deal of happiness might be learned:

"I want to tell you a secret. The way to make yourself pleasing to others is to show them that you care for them. The whole world is like the miller at Mansfield 'who cared for nobody—no, not he—because nobody cared for him.' And the whole world would serve you so if you gave the same cause. Let every one, therefore, see that you do care for them by showing them what Sterne so happily calls the small courtesies, in which there is no parade, whose voice is too still to tease, and which manifest themselves by tender and affectionate looks and little kind acts of attention, giving others the preference in every little enjoyment at the table, in the field, walking, sitting, or standing."

—Three centuries ago women were not allowed to learn to read in France. The remark of Voltaire that "ideas are like beards, women and young men have none," seems to have been the general belief.

—A college student in rendering to his father an account of his term expenses, inserted: "To charity, \$30." His father wrote back: "I fear charity covers a multitude of sins."

—An English physician uses carrier-pigeons to carry home prescriptions as he visits patients, and to bring him word from those who are very ill.

—Do n't flatter yourself that friendship authorizes you to say disagreeable things to your intimates.

A MISSION.

I WALKED along a forest side,
Where light the shadow chases,
And flowers my footsteps to betide,
Sprang thick in truant spaces.

"Oh, tell me why your loveliness
These lonely by-ways graces?"
They nodded back: "We grow to bless,
And fill up empty places!"

A Story of Steel Pens.—Few persons who use steel pens on which is stamped "Gillott" have any idea of the story of suffering, of indomitable pluck and persistence, which belong to the placing of that name on that article.

A long depression in trade in England threw thousands of Sheffield mechanics out of work, among them Joseph Gillott, then twenty-one years of age.

He left the city with but a shilling in his pocket. Reaching Birmingham, he went into an old inn and sat down upon a wooden settle in the tap-room. His last penny was spent for a roll. He was weak, hungry, and ill. He had not a friend in Birmingham; and there was little chance that he would find work.

In his despondency he was tempted to give up, and turn beggar or tramp. Then a sudden fiery energy seized him. He brought his fist down on the table, declaring to himself that he would try, and trust in God, come what would. He found work that day in making belt buckles, which were then fashionable.

As soon as he had saved a pound or two, he hired a garret in Bread Street and there carried on work for himself, bringing his taste and knowledge of tools into constant use, even when working at hand-made goods. This was the secret of Gillott's success. Other workmen drudged on passively in the old ruts. He was wide-awake, eager to improve his work, or to shorten the way of working.

He fell in love with a pretty and sensible girl named Mitchell, who with her brothers, was making steel pens. Each pen was then clipped, punched, and polished by hand, and pens were sold consequently at enormously high prices.

Gillott at once brought his skill in tools to bear on the matter, and soon invented a ma-

chine which turned the points out by thousands, in the time that a man would require to make one. He married Miss Mitchell, and they carried on the manufacture together for years.

On the morning of his marriage, the industrious young workman made a gross of pens, and sold them for thirty-six dollars to pay the wedding fees. In his old age, having reaped an enormous fortune by his shrewdness, honesty, and industry, Mr. Gillott went again to the old inn, bought the settle, and had the square on which he sat that night sawed out and made into a chair, which he left as an heir-loom to his family, to remind them of the secret of his success.—*Youth's Companion.*

The Inebriate's Brain.—Hyrti, by far the greatest anatomist of the age, used to say that he could distinguish in the darkest room by one stroke of the scalpel, the brain of the inebriate from that of a person who lived soberly. Now and then he could congratulate his class upon the possession of a drunkard's brain, admirably fitted, from its hardness and more complete preservation, for the purpose of demonstration. When the anatomist wishes to preserve a human brain for any length of time, he effects that object by keeping that organ in a vessel of alcohol. From a soft, pulpy substance, it then becomes comparatively hard; but the inebriate, anticipating the anatomist, begins the indurating process before death—begins it while the brain remains the consecrated temple of the soul—while its delicate and gossamer-like tissues still throb with the pulse of heaven-born life. Strange infatuation, thus to desecrate the Godlike! Terrible enchantment, that dries up all the fountains of generous feeling, petrifies all the tender humanities and sweet charities of life, leaving only a brain of lead and a heart of stone!—*Scientific American.*

—In his youth, Schiller learned to play upon the harp. A neighbor who disliked it once said to him, "Herr Schiller, you play like David, only not so finely." "And you," quickly replied Schiller, "speak like Solomon, only not so wisely."

POPULAR SCIENCE.

—A process has been discovered for making soap of petroleum.

—An ingenious German has discovered a way for raising sunken ships by the aid of balloons.

—Glass lamp-wicks are coming into use in Germany. They are made of spun glass, and are said to be much superior to cotton.

—Alligator leather is coming into quite general use. Many thousands of the reptiles are annually killed in the Southern States for their hides.

—The Smithsonian Institution has received a collection of 134 species of Japanese fish, being very nearly a complete collection of all the known species in that empire.

—The gas-wells of East Liverpool, Ohio, are worthy of being ranked among the "wonders of the world." They are situated, writes a correspondent of the *Cleveland Herald*, in and around the town, and give it a continual supply of light, the gas being almost as free as air. It costs practically nothing, and both heats and lights the town. The street lamps are ablaze day as well as night, for it costs nothing to supply the gas, and it takes trouble to shut it off. Then the gas is almost the only fuel employed in the town, being conducted into the grates and stoves by pipes. It is also used for generating steam-power for sundry great pottery manufactories, employing upward of 2,000 workmen. The first of the wells was opened twenty years ago, and there are no signs of exhaustion.—*Pop. Sci. Month.*

Carrier-Cats vs. Carrier-Pigeons.—It is well known that if a cat is carried a distance from its home it will find its way back in a short time, even when carried off in a bag and turned loose at night. This wonderful instinct in traveling through unfamiliar regions has suggested the possibility of cats being used as special messengers. Recently, thirty-seven cats residing in the city of Liege, Belgium, were taken in bags a long distance into the country. The animals were liber-

ated at 2 o'clock in the afternoon, and at 6:48 the same afternoon one of them reached its home. His feline companions arrived at Liege somewhat later, but within twenty-four hours every one had reached its home. It is proposed to establish a regular system of cat communication between Liege and the neighboring villages, and thus use cats as a substitute for carrier-pigeons.—*Journal of Applied Science.*

Curious Phenomenon on Jupiter.—Astronomy has given us so much and such accurate information respecting the sister planets which accompany our earth in her dizzy whirl through space, that we watch with almost as much interest for news from the remotest bounds of our solar system as from the antipodes. The latest news from Jupiter is that a strange red spot has appeared on the face of the planet, the cause of which no one has yet been able to explain. It is being studied with great care and interest by hundreds of observers.

A Home-Made Audiphone.—It may be interesting to deaf people to know that an instrument almost if not quite equal to the audiphone invented by Mr. Rhodes of Chicago, may be made for a few cents. That of Mr. Rhodes is constructed of hard rubber and is very expensive.

Take a sheet of quite heavy card or bristol board about eight inches square, attach a piece of strong silk cord about a foot in length to the middle of one edge of the board. Pass the other end through a small hole made near the opposite edge, midway between the two sides. By pulling on the cord while the edge next the free end of the cord is held fast, the opposite edge will be rolled up a little and the cord thus made tense. Now place the edge to which the end of the cord is tied to the mouth, placing it against the upper teeth, and by traction on the cord regulate the tension. Persons who can be benefited by the audiphone can hear with this simple apparatus almost, or quite, as well as with the more expensive instrument. We have tried it with a number of persons, several of whom pronounced it superior to the rubber instrument. It will cost nothing to try it, at any rate.

GOOD HEALTH.

BATTLE CREEK, MICH., MARCH, 1880.

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

TERMS, \$1.00 A YEAR.

MOISTEN THE AIR.

EVERYBODY has experienced the discomfort arising from excessive dryness of the air. It is this which occasions so general a dislike to the plan of heating buildings by direct radiation, that is, by steam-pipes in the rooms to be heated, as this plan of heating usually provides no means of moistening the air. Furnaces are usually furnished with pans for the purpose, though in general these pans are a greater nuisance than benefit. Many times they are not used, and if used are allowed to become so foul as to contaminate the air as well as moisten it.

While much is said about ventilation at the present, almost every newspaper and magazine giving the subject some attention, it is seldom that attention is called to the necessity of regulating the amount of moisture in the air. This is quite as necessary as the securing of pure air, for at least two reasons:—

1. Dry air has a great affinity for moisture, and if the required amount is not supplied in some other way, the demand will be satisfied by the abstraction of moisture from the mucous membrane of the air passages and of the eyes. It is this which occasions the unpleasant dryness of the eyes and throat when a person is for some time confined in an atmosphere which is deficient in moisture.

2. Experiments have shown that in order that the lungs shall readily absorb the oxygen of the air and send out carbonic acid gas, the two thousand square feet of mucous membrane which lines their cells must be kept moist, a certain degree of moisture being necessary to enable the gases to pass through the membrane readily. In a dry atmosphere this degree of moisture is not preserved, and hence arises the sense of oppression, sometimes almost amounting to a feeling of suffocation, from confinement in dry air. The effect is essentially the

same as though a part of the supply of air was cut off, since the lungs cannot fully utilize the air which is drawn into them in inhalation.

The moisture in the air is in the state of an invisible vapor intimately mixed with the air. Warm air has the property of retaining in this condition a much larger quantity than cold air. This fact is made evident by the falling of snow and rain, and the deposit of dew. The apparent sweating of a glass containing ice-water, when placed in a warm room, is caused in the same way, the moisture of the air condensing on the glass as the air is cooled by contact with it.

A cubic foot of air just below freezing point contains, when saturated, about two grains of water. At 70° F., the amount is four times as great, or eight grains. Careful observations show that two-thirds of this quantity, which is about the proportion found in the air in the month of June, is the best proportion for health. Estimating upon this basis, the air of a room, fifteen by twenty feet, and ten feet high, should contain, at a temperature just below freezing, half a pint of water in the form of vapor. When the temperature of this amount of air has been raised to 70°, by passing through a furnace, over heated pipes, or by means of a stove, it should contain four times as much water, or two quarts. This quantity it will get where it can, and will make no scruples of stealing it from the eyes, the nose, the mouth, the lungs, wherever it can find moisture. It is evident, then, that one and a half quarts of water should be in some way added to the amount of air specified to render it suitable for breathing. This may be done by means of evaporation, care being taken to employ an evaporating vessel of proper size to evaporate one or two quarts an hour.

It is of course only in winter, when there is a great difference between the temperature of the air in living rooms and out of doors, that this measure is necessary.

ERRORS IN VENTILATION.

It is generally supposed that an upright shaft has a natural disposition to draw, so that if a building is furnished with a ventilating shaft, everything that could be desired in the direction of ventilation is attained. That this is an error, has been proven in thousands of instances, some of which were, alas, too evident in the faded faces of those who have depended on the supposition of security based upon this popular error. A ventilating shaft is of little use, and often worse than useless, unless it has an artificial draft produced in it by heat. A strong breeze passing over the top of a shaft will often produce quite a draft in it, but when the air is quiet, the draft will cease, or if the

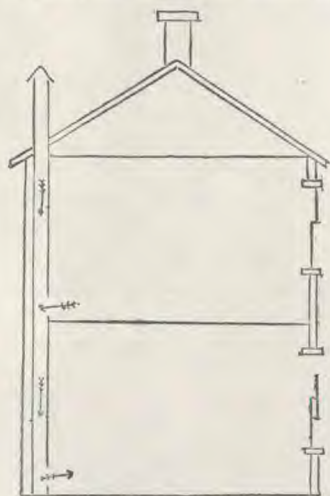


FIG. 1.

wind changes suddenly, it may be downward instead of upward. In Fig. 1 it will be seen by the direction of the arrows that the air is coming down into the lower room of the house, instead of passing out at the top of the shaft. The ventilator is, in fact, working backward. If the ventilating shaft were heated by a fire-place, a small oil stove, or a coil of steam-pipe, there would be a constant upward current, and the foul air in the house would be carried away.

It will also be observed that the air in the upper room is coming down the shaft and out into the lower room. We have found exactly this state of things existing. A large school building was supposed to be ventilated by two large cold shafts. We found upon examination that the foul air in the upper rooms, which were crowded with large students, was actually

carried down the shaft to the lowest rooms to be used over again by the little ones. We did not wonder that they were sleepy and complained of headache.

Fig. 2 shows another evil arising out of blind faith in shafts without an understanding of the principles involved. The draft, as will be seen by reference to the diagram, instead of going up through the roof, terminates in the attic. Upon examination of a building ventilated in this way we found the air in the attic hot and very impure, showing that the shaft did a little good; but of course very little foul air could be disposed of in this way. In this case there were two shafts, one on each side of the building, and the foul air that came up

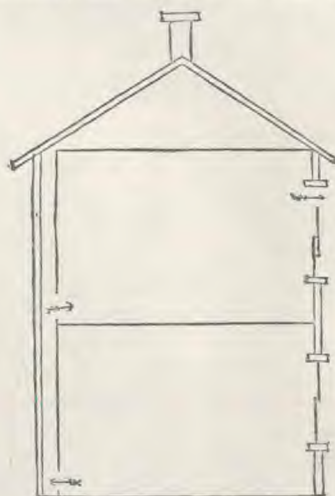


FIG. 2.

one shaft, after cooling would descend by the other, entering the lower rooms and being used over again. In the diagram the air is shown as entering the shaft from the lower room, passing out into the upper room and out of the window which happens to be open. In this case the lower room would be ventilated, but the occupants of the upper room would be compelled to breathe the foul air which had been contaminated by the respiration of the occupants of the room below.

As our space is somewhat crowded this month we will leave until the next number the description of a simple plan for ventilation which can be successfully applied to almost any house.

—Health is an energetic man's capital.

WHAT IS CONTAGION?

ALTHOUGH there is still considerable mystery about the nature and mode of the action of contagion, microscopy has revealed some things of great importance, which are well set forth in the following article from the *Nineteenth Century*:—

“Contagion consists physically of minute solid particles. The process of contagion consists in the passage of these from the bodies of the sick into the surrounding atmosphere, and in the inhalation of one or more of them by those in the immediate neighborhood. If contagion were a gaseous or vapory emanation, it would be equally diffused through the sick room, and all who entered it would, if susceptible, suffer alike and inevitably. But such is not the case; for many people are exposed for weeks and months without suffering. Of two persons situated in exactly the same circumstances, and exposed in exactly the same degree to a given contagion, one may suffer and the other escape. The explanation of this is that the little particles of contagion are irregularly scattered about in the atmosphere, so that the inhalation of one or more of them is purely a matter of chance, such chance bearing a direct relation to the number of particles which exist in a given cubic space. Suppose that a hundred germs are floating about in a room containing two thousand cubic feet of air. There is one germ for every twenty cubic feet. Naturally the germs will be most numerous in the immediate neighborhood of their source, the person of the sufferer; but, excepting this one place, they may be pretty equally distributed through the room; or they may be very unequally distributed. A draught across the bed may carry them now to one side, now to the other. The mass of them may be near the ceiling, or near the floor. In a given twenty cubic feet there may be a dozen germs or there may be none at all. One who enters the room may inhale a germ before he has been in it ten minutes, or he may remain there for an hour without doing so. Double the number of germs and you double the danger. Diminish the size of the room by one half, and you do the same. Keep the windows shut, and you keep the germs in; open them, and they pass out with the changing

air. Hence the importance of free ventilation; and hence one reason why fever should be treated, if possible, in large airy rooms. Not only is free ventilation good for the sufferer, but it diminishes the risk to the attendants.”

EXPECTANT TREATMENT OF TYPHOID FEVER.

DR. ALEXANDER COLLIE, medical officer of the Homerton (Eng.) Fever Hospital, after trying many methods of treatment, has finally concluded that active medication is detrimental, and that all that should be done is to keep the patient quiet, give him judicious food and good nursing, and such palliative treatment as his symptoms may require, and let nature cure him. He says:—

“I believe the expectant treatment to be the best. There are cases which recover and cases which die; and in order that we may not prevent the one, nor hasten the other, I think the safest course in the present state of our knowledge is to abstain from interference. *‘Opportunum medicamentum est opportune cibus datus’* (Proper medication is the judicious giving of food); to which let us add general hygienic measures and good nursing, and I believe the treatment of acute disease to be almost complete.”

How many thousands of persons might be alive to-day had even the expectant plan of treatment been followed! We regret to know that there are still in practice hundreds, even thousands, of physicians who have not learned that nature and vitality are of any account. They will squander a patient's meager sum of vital force as though he had an inexhaustible supply. Thousands of fever patients have been killed by “active medication;” and it is time that a more sensible plan were adopted. Our advice to those who need a physician always is, employ a man who believes in nature, and in her power to cure disease; who will study carefully what nature is trying to do for the sick one and assiduously endeavor to aid in the work by carefully assisting nature and controlling the vital activities by which she endeavors to effect a cure, aiding or checking them as the requirements of the case may demand. Nature is not intelligent. She sometimes works blindly, and she sometimes needs the aid and guidance of an intelligent, watchful physician.

DEATH FROM TRICHINOSIS.

A SHORT time ago four cases of trichinosis occurred in a family in New Jersey, one case, that of the father, being fatal, probably because of the larger quantity of the diseased meat eaten by him. The point of particular interest in these cases was that the pork which poisoned them was declared to have been well cooked. This confirms the statement we have frequently made, that the use of pork containing trichinæ is unsafe even if well cooked, since the inner portions of the piece or slices are not likely to be exposed to a degree of heat sufficient to destroy the parasites. The only safety for those who do not care to have their muscles swarming with vermin while they are yet alive, is to wholly abstain from the use of the flesh of this unclean beast. There are plenty of kinds of animal food much more nutritious and wholesome than swine's flesh, which was never designed to be eaten, and in the law of Moses was strictly prohibited. In our view, if there were sufficient reasons for the prohibition of the use of pork as an article of food in the time of Moses, there is certainly abundant reason at the present day, when the scavenger has become the native home of so deadly a parasite as is known to inhabit his carcass.

HORSE-BEEF.

THE French committee for the encouragement of the use of horse flesh as an article of food, report that in 1878 11,319 horses and mules were slaughtered in Paris for food, an increase of 700 over the previous year.

When it is borne in mind that all of these animals must be in some way disabled to render their use as food a matter of pecuniary advantage, it will be readily seen that the use of horse-beef must be anything but salutary, even if the animals were proper to be used as food when in their best condition. The horse neither parts the hoof nor chews the cud, and so is distinctly forbidden by the dietetic law of Moses, which has generally been allowed by those qualified to express an opinion about it, to contain no unwholesome restrictions. To think of eating the flesh of cart-horses, mules and donkeys, worn out with work, ill-usage, poor food, or maimed by accident, made useless by ringbone, spavin, heaves, or any one of the scores of other diseases which affect the

horse kind, is certainly not appetizing to an American palate; and we must express our satisfaction with that part of the report referred to which stated that the attempt to introduce the practice hippophagy into London had been an entire failure, although the Frenchman who made the attempt was rewarded by a medal for his effort.

So far as we are concerned, personally, however, we can see no consistency in refusing an animal so cleanly in his habits as the horse, while greedily devouring ham, spare-rib, sausage, and hog in every other possible shape. Of the two, we should certainly prefer the vegetarian horse to the omnivorous scavenger. When there is such a profusion of so much better food, both animal and vegetable, it is certainly wise to adhere to the wholesome rules laid down by the great sanitary legislator, Moses.

HOW TO APPLY A FOMENTATION.

ONE of the best remedies known for bruises, sprains, boils, neuralgias, rheumatism, gout, colic, and a host of maladies we might name, is fomentation; but it must be applied thoroughly. The first thing requisite is a soft flannel of a sufficient size to well cover the part to which it is to be applied after being folded four thicknesses. Fold as to be applied and then dip in very hot water, lifting it out by the corner and placing it in the middle of a towel. Roll up quickly lengthwise of the towel, and wring nearly as dry as possible by twisting the ends of the towel. In this way the fomentation can be wrung out much hotter than with the hands. Of course it will be too hot to apply to the bare flesh; but do not waste heat by letting it cool. Protect the skin by one or more thicknesses of flannel and apply at once, covering with another dry flannel. The fomentation will gradually warm through, and will retain its heat two or three times as long as when applied in the ordinary way.

When heat is required a long time, a bag of hot meal, salt, or sand, a hot brick or bottle, or, best of all, a rubber bag filled with water may be used, being covered with a moist flannel when moist heat is necessary.

When a fomentation is wanted quickly, it may be prepared in half a minute by wringing a flannel nearly dry out of cold water and wrapping it around the stove-pipe, or holding against

the side of the stove. If the stove has been recently blacked, a thickness of newspaper should be placed between the wet flannel and the hot surface to keep the flannel clean.

Poultices usually act essentially the same as fomentations, being most useful where moisture and heat are needed for some hours, as in the case of boils and felons. The ordinary way of applying is troublesome and inconvenient. Here is a much neater way: Make a little bag of proper size to cover the part to which the poultice is to be applied, of some kind of loose material, as slazy muslin. Put the poultice in this, not waiting for it to cool. To prevent burning, when first applied, place one or two thicknesses of flannel between the bag and the skin. Cover all with a dry cloth or piece of oil-silk.

Poisoning from Decayed Meat.—Every one is not aware of the exceedingly poisonous character of meat which has begun to undergo putrefaction. Numerous cases have occurred in which persons have lost their lives by cutting a finger while handling decayed meat, or flesh in a condition known as "high" by the English, in which it is by many preferred on account of being more tender than when fresh. A recent English journal reports the case of a man who cut his finger while opening a can of preserved meat, from which he died twenty days later, notwithstanding every possible effort was made to save his life. In a few days after the cut, the finger began to swell, and continued to grow worse until he died of blood poisoning. Canned meat frequently undergoes putrefactive changes, which may be so slight as to be unnoticed by the smell, and occasion poisoning, not only by accidental wounds, but by being eaten. Numerous instances of this kind have occurred. If meat is to be eaten, get the healthiest and freshest that can be obtained. Persons who find no use for meat do not of course incur these dangers.

Both Food and Physic.—Some time ago a medical genius originated the idea of medicating the sick through the medium of food. That is, he would select for each invalid some particular article of food which might exert a favorable influence upon his disease. For example: To a sleepless person he would feed onions or lettuce, with a few sips of hop tea;

to a rheumatic he would give celery; for the worn-out student suffering with excessive brain-work, he would prescribe a fish diet, etc. It seems, however, that the discovery of this plan of making articles of diet both food and medicine originated with a couple of Scotch farmers, who, according to the *British Agriculturist*, regularly supply the inhabitants of a large village with buttermilk. They met recently and had a jawing match on their respective mixtures of acid cream tartar and water, known as a marketable commodity called sour milk. "Deed, ye need na blaw about the richness o' your milk, Hughie," said one; "Mrs. M——, the pig-feeder, tell'd me, when she spak' to get o't fra me, yours was just a slush o' deranged water, and was na fit to feed pigs."

"Feth, that's the Guid's truth, Jamie, for Mrs. M—— tell'd me she fed her pigs wi' your milk, an' they were a' gaun to skin and bones; so she gets three pints fra me tae feed her pigs, an' she gi'es your slutter tae her man and her weans, as it serves them for baith fuid an' feezick."

Sulphuric Acid Vinegar.—As adulteration is the order of the day, it is not surprising that an article which can be sophisticated so easily as can vinegar should be the subject of harmful adulteration. There is no doubt that large quantities of vinegar are sold which contain scarcely a trace of real acetic acid, sulphuric acid or oil of vitriol being commonly used as a substitute. This acid is also very largely used for the purpose of giving additional strength to weak cider vinegar. This adulterated vinegar is exceedingly harmful to the teeth and gums as well as the stomachs of the consumers (genuine vinegar is bad enough), and it is very important that everybody who insists on using this condiment should know how to distinguish the pure article from that which has been sophisticated. The following is a simple and reliable plan:—

Purchase at the drug-store a dram of chloride of barium, or muriate of baryta, as it is commonly called. Dissolve in as small a quantity of water as will completely dissolve it. If the solution is not perfectly clear, allow it to settle. Put a tablespoonful of the vinegar in a wine-glass, and add one or two teaspoonfuls of the clear solution. If there is any sulphuric acid

present, a white powder will soon make its appearance at the bottom and on the sides of the glass.

Considerable quantities of vinegar are made from artificial sugar, or glucose, made from refuse starch, sawdust, cotton rags, etc. Vinegar thus made contains considerable quantities of sulphuric acid, and hence it may be detected by the same test given for that which has been directly adulterated with the acid.

Remedy for Poison Ivy.—In some parts of the country, particularly in the South, the poison ivy, or poison vine as it is sometimes called, is so common, and cases of poisoning by it so frequent, that it is important to know how to treat it successfully. It has been ascertained by chemical analysis of the vine that its poison is an acid. This fact suggests that an alkali would be the best remedy, and so it is. As soon as symptoms of poisoning occur, apply at once cloths wet in lime-water, and keep the part protected from the air. The application of a decoction of oak bark is also a good remedy to be used with the lime-water, applying it to the part with a fine sponge, or saturated linen cloth. If no lime-water can be readily obtained, use very weak white lye, made by boiling a half pint of ashes in a gallon of water, and adding water sufficient to prevent smarting. Lime is considered the best.

Poisoning on a Mammoth Scale.—An English physician has ascertained by careful investigation that the maximum quantity of alcohol which may be taken without producing poisonous effects is an ounce and a half for a healthy man, and three-quarters of an ounce for a woman. With feeble persons it is much less, so that the average quantity is one ounce. Calculations show that the amount of alcohol consumed, in England, is at the rate of two ounces and a quarter for each of the 14,000,000 consumers. As many drink less than this, others consume as much as six, seven, and ten ounces a day. The conclusion from this is that many millions of English people are being daily poisoned by alcohol. The same may be said of American drinkers, very few of whom consume so little as an ounce and a half of alcohol per day. This is certainly poisoning on a gigantic scale. The effects of this wholesale

poisoning are seen in the decreasing physical strength, increase of nervous diseases, and increase of crime too plainly to be seen to be denied.

A Mistaken Notion.—The notion is entertained by some persons, and even by physicians, that because children are usually very fond of sweet it is essential for their nutrition, and ought to be furnished to them in abundance. The error of this view is very well exposed by a fact stated by Sir Anthony Carlisle, an Arctic traveler. According to Mr. Carlisle the little folks in the vicinity of the North Pole are not fond of sweets. He says that when sugar was placed in their mouths they made wry faces and sputtered it out with disgust.

Transplanting Teeth.—A French physician lately removed a tooth from the lower jaw of a patient and placed it in the upper jaw. The experiment was a success, and the tooth became firmly fixed in its new quarters. The surgeon suggests the possibility of replacing carious teeth by the teeth of animals.

Gray Hair and Baldness.—There are doubtless many causes of premature degeneration of the hair, resulting in loss of color and baldness; but by far the most frequent is dyspepsia. Defective nutrition is the great cause of degenerations of all sorts, and the general principle holds good of the hair as well as of other structures. Our observations on this subject fully accord with those of a physician who, in an article on the subject of premature gray hair and baldness in a foreign journal, attributes it to bad diet. Bad diet causes dyspepsia, and this occasions the defective nutrition upon which degeneration of the hair depends.

Fortunate Acquirements.—A lady who expressed surprise at seeing the children of a friend exposing themselves to taking cold by recklessly wetting their feet, when asked if her children did not do the same thing answered, "No; I've managed to make my three boys believe that it is vulgar and ungentlemanly either to get their feet wet, or sit in a thorough draft, or bolt their food, or eat goodies between their meals, or go to juvenile parties, poor dears. They're rather soft, perhaps, but

they're twice the size of any other boys of their age, and they've never had an hour's illness in their lives."

If every mother could make her children believe similar good notions, there would soon be a marked improvement in the race. One-half the vitality of the race is squandered in infancy and childhood by exposure and want of care.

Frozen Live-Stock.—An ingenious but cruel method has been proposed to facilitate the exportation of cattle and other live-stock to distant parts without the expense of feeding. The plan suggested is to freeze the animals nearly to the point of death, and to transport them in this condition. The little vitality left would be a great help to prevent decomposition, and there would be a great saving of food. We are glad to see the plan condemned in unstinted terms by leading journals, as such cruelty ought not to be countenanced. Perhaps we shall soon have the same plan proposed for importing immigrants. It certainly would be a great saving of food and sea-sickness.

Simple Treatment for Chafing in Children.—An English physician says, in answer to the query of another in an English medical journal, respecting the best method of treating an obstinate case of this affection so common in infants, "He may with safety leave off all medicines with his little patient. I never knew medicine do any good." He recommended washing with soap and water, then, after carefully drying, applying a lotion of white of egg, leaving wet. This treatment he had used twenty-five years with uniform success. Putting on powder, as usually practiced, often does harm, as it is frequently put on when the surface is moist, when it will form lumps and produce irritation and galling by getting in the creases of the flesh.

Tobacco Blindness.—Ophthalmologists, or physicians who make a specialty of diseases of the eye, have given much attention of late to a new disease of the eye which has been discovered within a few years and is now generally recognized. The new malady is a peculiar form of blindness due to the use of tobacco. This disease begins insidiously, and, unless the indi-

vidual ceases the use of the weed, steadily progresses until sight is entirely destroyed. It was at first supposed that smoking was the only cause of the disease; but it is now known that chewing is equally bad, or even worse, in its effects than smoking. A form of blindness closely resembling that from tobacco is produced by the use of liquor.

Tobacco blindness is very common in Ireland on account of the large use in that country of very strong tobacco.

These statements are made on the authority of the *British Medical Journal*, the leading medical journal of the world, which publishes a full account of an interesting discussion of the subject which occurred at the last meeting of the British Medical Association, held at Cork.

The Man Serpent.—An account is given in a foreign medical journal, of a young man in Paris who accomplishes such astounding feats as to be called the "man serpent." He is short, and there is nothing remarkable about his build or osseous system to account for his agility. His muscles are well developed. He performs daily either in private or in public, for he says that his joints lose their elasticity if he misses a single day. He lives on two meals a day, and his diet is chiefly vegetables and farinaceous substances. He uses no alcoholic liquor. He abstains from food for twelve hours before performing his exercises.

Fish Bones in the Throat.—We do not recommend people to incur the risk of getting fish bones into the throat, but some people will do it, and often suffer the consequences. Very small bones can usually be dislodged by swallowing some rather hard food, as crackers or a crust of bread coarsely chewed; but when larger bones are caught in the throat no attempt should be made to push them down, as is often done. They should be removed from above. An eminent physician has been experimenting on the effect of weak acids on fish bones, and finds that a solution of muriatic or nitric acid, one part of the acid to two hundred and forty of water, will soften the bones in an hour. Taking a hint from this fact the doctor proposes the use of an acid gargle in cases in which a large bone is lodged in the throat. A gargle of the strength indicated will be borne without

inconvenience in contact with the mucous membrane. It should be continued for an hour, care being taken to protect the teeth as much as possible, and should be allowed to run down into the throat as far as possible. If the bone is too low down to be reached in this way, of course no good can be done. We have had no opportunity to try this method, but think it would be worth while to give it a trial in case of necessity, and in the absence of other means for extracting the bone.

Mortality from Intemperance.—Drs. Kerr and Hardwicke, two eminent English physicians, have been making careful investigations respecting the number of deaths annually resulting from the use of alcohol. The results of their investigations show that at least 100,000 deaths occur in England every year in consequence of the use of this poisonous drug. They also find that gout, a disease well known to be especially dependent upon the use of alcoholic liquors, particularly wines, is much more frequent and fatal than ten years ago.

An Absent-Minded Doctor.—The *American Bi-Weekly* tells a story of a doctor who, on calling upon a gentleman who was ill, put a fee into the sick man's hand, and himself took the medicine which he had prepared. The doctor was so absent-minded that he did not become conscious of his blunder until he found himself getting sick and his patient rapidly recovering.

Parasitic Cause of Consumption.—A German physician of eminence claims to have discovered that consumption is caused by parasitic germs which find their way into the lungs from the air. This theory would seem to agree with the fact that the greatest freedom from the disease is in high, dry countries where germs are so scarce that decomposition proceeds very slowly. Such a country is found on the elevated plateaus of South America, where pulmonary disease is almost unknown. The observations are not yet confirmed, however, though a number of eminent physicians are investigating the subject.

QUESTION & DEPARTMENT.

In this Department will be considered all questions of General Interest pertaining to the subject of Hygiene.

How May a Round Shouldered Person Become Straight?

Most round shouldered people can become straight if they will make a proper effort. Round shoulders, besides being a deformity, are a serious impediment to full respiration; hence, every person thus affected should make the most energetic efforts to overcome the deformity and remove the restriction from the lungs.

The way to remedy this physical defect is to pursue exactly the opposite course from that by which it was produced. In the great number of cases it is the result of leaning forward while sitting, especially when sitting at a desk or table engaged in writing or study; sleeping with huge bolsters or several pillows under the head at night; sitting upon a stool with no support for the back, and allowing the spine to curve backward and the shoulders to droop forward. In all of these ways, and more, round shoulders are produced. To remedy the defect, begin right where the evil commenced. Sit only in chairs which will support the back well,

keeping the shoulders well thrown back by a constant effort of the will. When engaged in writing or study, resolutely keep the head up and the shoulders back. In walking do the same. Think of it a hundred times a day. Make a business of keeping straight. Many times a day draw the shoulders back as far as possible and hold them for a few minutes. When walking, hold the head up, the shoulders back, with the chin slightly depressed, and maintain the position. By this means the weak muscles will be gradually strengthened, and if there has been no bony deformity produced, the difficulty can be wholly overcome.

Dumb-bell exercise, using wooden dumb-bells, and various other forms of gymnastic exercise, are very useful in strengthening the muscles of the shoulders and overcoming the deformity. The earlier the effort is begun the more complete will be the recovery, as the joints become more rigid and the muscles more permanently weakened in old age. Shoulder braces are of no use as a permanent remedy. They may be

worn for a little time at first as a help by way of reminding a person to straighten up; but in order to do any good they must be stiff enough to be in some degree uncomfortable unless the shoulders are drawn back.

When Is the Best Time to Exercise?

This question is often asked by those who are devoting themselves to the recovery of their health, and who can take exercise at any hour which is best for them. The majority of persons are obliged to conform somewhat to the demands of other duties, and so devote themselves to exercise and other means of promoting health when they can find opportunity to do so. When exercise can be taken at any hour, the time at which the maximum amount of benefit may be derived from it is undoubtedly about ten o'clock in the forenoon. The old-fashioned idea that there is special virtue in exercise taken before breakfast is a mistaken one. People who are robust may exercise before breakfast in a moderate degree without injury; and no doubt exercise taken before breakfast, unless excessive, would be more beneficial to almost any one than no exercise at all; but severe exercise, even for well persons, and almost anything that would be called exercise, for invalids, is injurious. About two or three hours after breakfast the energies of the system are at their maximum.

For sedentary people, who are troubled much with sleeplessness, a walk just before retiring is a most excellent means of obtaining sleep. Some dyspeptics are able to digest better by taking gentle exercise just after eating. With others, absolute rest is required until the stomach has well begun its work.

Is Drinking at Meals Healthful?

The answer to this question is not so imperative as many may suppose. Whether or not drinking at meals is healthful depends on the character of the food taken. A meal of dry crackers may well be accompanied by an occasional sip of fluid of some kind, preferably water about the temperature of the blood. There are occasionally dyspeptics who must abstain from all fluids at meals, and for an hour or two after meals; but there are also others who are benefited by taking a few sips of quite warm fluid just at the close of the meal, and others who derive benefit from drinking copiously half an hour before eating. It is the extreme and bad practice of drinking large quantities of fluid at meals that is to be deprecated, and not so much the taking of a few sips. It should be kept in mind, however, that food is never to be washed into the stomach by fluids. Softening the food with fluids, or rinsing it down, will in no sense take the place of mastication.

FARM AND HOUSEHOLD.

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

Chemicals in the Household.—It is surprising, considering how many women have been instructed in chemistry in school-days, to find how few housekeepers make any use of chemicals in various household processes. Especially is it the case in cleansing processes. The washing of clothes is usually wholly accomplished by rubbing them on the washboard, and with no other detergent than soap. The rubbing of the clothes wears them out far more than use; and if housekeepers only knew, or, if knowing, they would take advantage of the fact, that many washing compounds will almost entirely cleanse clothes which are soaked in them over night, and thus almost entirely do away with

the labor and wear of the washboard, wash-day might be robbed of half its terrors. Recipes for washing compounds, the principal ingredients of which are soda ash, ammonia, and lime, can be found in almost any household recipe book, and they are very cheap and harmless.

All such washing compounds are useful and convenient for cleansing wood-work, paints, and carpets in a house; also in washing dishes and securing that desideratum of housekeepers—clean dishcloths. Ammonia is a simple, cheap, and harmless chemical, and should be bought by the quart and kept in every family. A few drops added to water will cleanse children's hair and make it soft and sweet. It is an ad-

mirable disinfectant to remove the odor of perspiration. It will remove grease-spots from clothing, and often restore color to stains. Its common and frequent use cannot be too often urged. Borax is another chemical that should find common use in every family. For cleansing the teeth and sweetening the breath a few grains of the powder in water are unexcelled. It also softens and whitens flannels.

Salicylic acid is a perfectly odorless and harmless, yet powerful disinfectant, and for many disinfecting uses in the household is invaluable. In these days, when to stay various forms of disease is so important, mothers and housekeepers would do well to give study and thought to these things, and try to make their knowledge of science practical. It is very encouraging to note how many women are at present turning their attention to studies in general and applied science. Let us have its benefits exemplified in the household.—*Family Circle*.

To Remove Wall Stains.—Oil marks on the wall-paper where careless persons have rested their heads may be removed by making a paste of cold water and pipe-clay or fuller's-earth and laying it on the stains without rubbing it in; leave it on all night, and in the morning it can be brushed off, and the spot, unless a very old one, will have disappeared. If old, renew the application.

To Test Kerosene.—The *Country Gentleman* is authority for the following: "The proper method of testing kerosene oil is with a coal-oil pyrometer, an apparatus somewhat expensive, and requiring skill to use. Safe oil should not evolve a combustible vapor below 100° F., nor take fire below 110° F. A test of some approximate value may be roughly made as follows: Place a little of the oil in a saucer, and if on applying a lighted match the oil can be made to take fire, even on a hot summer day, it should be considered unsafe. It is unnecessary to say that great care must be taken in applying the test, and all vessels containing the oil removed to a safe distance. A book or pamphlet should also be at hand to place over the saucer to extinguish the flame, in case the oil ignites."

To Stop Rat Holes.—Use a mixture of plaster of Paris and powdered glass.

Pruning Fruit Trees.—The orchard is a department of the farm that too often suffers from neglect. The best time to prune fruit trees is a subject upon which farmers disagree; but, all things considered, there is probably no better time than February or March. At that period farmers usually have little else to do, and the work will be more thoroughly done than it would be if postponed to a more busy season. The warm days of February furnish an excellent time for tree pruning. With a short ladder, a strong pruning-knife, and a fine-toothed saw, the farmer should go over his orchard every year. When two branches are rubbed together by the wind so that the bark is marred, one of them should be removed. Dead and broken limbs and sprouts should be cut off, and wherever the shoots have grown so thick as to interfere with each other, they should be thinned out. Whenever it is found necessary to cut off a large branch, the wound should be sealed as soon as the surface becomes dry, with a coating of white lead or common paint. This prevents a waste of sap, and preserves the wood from decay.—*Rural New Yorker*.

To Scour Zinc.—Housekeepers will find that zinc may be scoured with a great saving of time and labor by using glycerine mixed with a little diluted sulphuric acid. A solution of strong vinegar and common salt is also good for the same purpose.

To Remove Ink from Carpets.—Ink which has been spilled on carpets or woollen goods should be attended to while wet if possible. Take clean blotting paper or cotton batting and gently sop up all the ink that has not soaked in. Then pour sweet milk on the ink spot and sponge it with fresh batting. It will need to be renewed several times, using fresh milk and batting each time. Do not rub the spot, but sop it with care in order not to spread the ink. After the ink has disappeared, wash the spot with clean water and dry with a cloth.

—Gilt metallic articles may be cleaned by rubbing them lightly with a soft sponge or brush dipped in a solution of one-half an ounce of borax in a pint of water, then rinsing them in pure water and drying with a soft linen cloth.

NEWS AND MISCELLANY.

- A cooking school has been opened in Detroit.
- Michigan has 5,173 inland lakes, and 1,620 miles of coast line.
- James Russell Lowell has been appointed U. S. Minister to England.
- An earthquake shock was experienced near Ottawa, Canada, Feb. 8.
- In the last two years Memphis, Tenn., has buried 6,000 of her population.
- Platinum in considerable quantities has been discovered in California.
- The corn crop of the past season was the largest ever grown in this country.
- Recent researches show the temperature of the sun to be about 30,000° C.
- A new planetoid was discovered by M. Palisa, on the sixth of February, 1880.
- The French Chamber of Deputies has passed a bill for the suppression of political clubs.
- Since the invention of the locomotive, \$15,000,000,000 have been expended in railroads.
- The ground in Rome has been covered with snow this season, for the first time in eight years.
- The king of Italy has bought land in Abyssinia, and is trying to start an Italian colony there.
- There are sixty-seven silk mills in New Jersey, with an annual product amounting to \$14,000,000.
- Five and a half million dollars are spent every year by the Russian Government on military schools.
- Since the organization of the government, 929 treaties have been made with 327 tribes or bands of Indians.
- Last year there were 3,788 miles of railroad laid in the United States, one-fifth of which was narrow gauge.
- The oldest post-office in the country is that of Jamestown, Va. Letters have been delivered there for 283 years.
- There was not a single execution in Paris during the year 1879, a fact almost unparalleled in the present century.
- Two hundred families of Philadelphia Quakers will form a colony on the Northern Pacific R. R., in Minnesota, this spring.
- Edison has been granted a new patent for his electric lamp, and claims to be nearly ready to put it in operation on a large scale.
- Lord Beaconsfield is 75 years old. He has been in public life since 1837, when he entered Parliament as the representative of Maidstone.
- It costs, on an average, over a thousand dollars to arrest, convict, sentence, and hold a criminal in State's prison for a term of three years.
- It is reported that German authorities have agreed that it is advisable to re-establish harmony between the Romish Church and Germany.

—After a tedious trial of more than three months, the Rev. H. H. Hayden, charged with the murder of Mary Stannard, has been practically acquitted.

—Within the last forty-two years the kingdom of Greece has doubled its population. This growth is the result of independence and liberal institutions.

—Preparations are under way for a new American Arctic expedition under the direction of Dr. Emil Besels, late chief of the scientific staff of the *Polaris*.

—According to official report, Russia raises about 3,102,000 pounds of tobacco a year, the revenue from which is over \$6,000,000 per annum. A fearful waste.

—The school population of the 38 States is 14,227,784, but the number in daily attendance is only about 4,919,408, leaving over nine million of youth growing up in ignorance.

—The electric light was recently introduced into a hydraulic mining claim in Nevada, and with such good success that the miners were enabled to see to work as readily by night as during the day.

—It has been decided that the English Memorial to the late Princess Alice shall take the form of an endowment of the Hospital and School for Nurses, in Darmstadt, founded by her late Royal Highness.

—In countries where the banana is plentiful, flour is made of it by drying and pulverizing the fruit before maturity. The flour has been analyzed and found to contain 66.1 per cent of starch, and 2.9 of azotized matter.

—The Congressional Library now contains 352,655 volumes and 120,000 pamphlets. The Library was founded April 24, 1800. It has been burned twice—in 1817, when the Capitol was burned by the British, and again in 1851.

—Telegraph repairers, in Kansas, use a velocipede with which they are able to travel upon the railroad track at the rate of twenty miles an hour. It has two wheels, like a bicycle, which run on one track, while a smaller one, for steadying, rests on the other track.

—A most violent shock of earthquake was experienced in the towns in the proximity of Lake Ilopango, San Salvador, Dec. 27. The lake, which is supposed to have been at some period the crater of an active volcano, had exhibited the most remarkable agitation for some time.

—In view of the prevalence of intemperance, and the fact that the difficulty of working the compulsory clause of the Education act arises largely from this source, the schools of Edinburgh are to have the principles of temperance taught in them, a plan which ought to be adopted everywhere.

—Cremation seems to be gaining favor in Pennsylvania. The body of a Pittsburg young lady was incinerated in the Le Moyne crematory at Washington, Pa., Feb. 7, and the managers of that crematory say that they have over one hundred applications from persons now living, for the use of the crematory.

—A postal card mailed at Paterson, N. J., Oct. 9, 1879, has been around the world via London, Paris, Marseilles, Suez, Aden, Bombay, Calcutta, Yokohama, and San Francisco, in 110 days. Three days were lost in waiting at Calcutta, and 18 in delay at Yokohama; otherwise the time would have been 89 days.

LITERARY NOTICES.

THE SCIENCE AND ART OF ELOCUTION; OR HOW TO READ AND SPEAK. Philadelphia: John E. Potter & Co.

This book, by Frank H. Feno, of the National School of Elocution, is a comprehensive treatise on elocution in three parts, consisting of a systematic series of exercises for gesture and cultivation of the voice, and a collection of choice selections for reading and speaking. It is an excellent book for schools and private study. The principles of elocution presented are concise and comprehensive, and the examples selected are well adapted to their use. The selections afford ample range of expression, and many of them give excellent opportunity for elocutionary effect. Each selection is accompanied with explanatory notes indicating the manner in which it should be rendered.

THE FLORAL MONTHLY. Portland, Me.

Vol. 1, No. 1, of this paper has come to our table well filled with excellent hints concerning the care and management of flowers and plants. This is a new monthly just started in the interests of floriculture, and one which, according to the prospectus, will give each month plain and practical hints concerning the cultivation of those beautiful gems of nature which make our homes bright and cheerful. There is no more healthful and elevating employment than the cultivation of flowers. There are thousands of invalid ladies who might regain their health while caring for the health of a few house or garden plants, through the gentle, recreative exercise which would be afforded them.

THE WESTERN REVIEW OF SCIENCE AND INDUSTRY. Kansas City, Mo.

This is the leading scientific journal of the West, a position to which it has advanced with rapid strides since its first publication, less than three years ago. Each number presents a large and varied table of contents, comprising a good summary of the current scientific news, in addition to able original articles on the various departments of science. The journal is popular in character, and ought to be largely patronized.

A PROTEST AGAINST MEDDLESOME MIDWIFERY. By H. Gibbons, Sr., M. D. San Francisco, Cal.

The above is the title of a paper read by the author before the San Francisco County Medical Society. It consists chiefly in a protest against the too frequent use of the forceps in midwifery, and warns practitioners against attempting some of the procedures adopted and recommended by specialists whose opportunities give them a de-

gree of skill which make safe and prudent for them procedures which would be hazardous in less skillful hands. We quite agree with the author in his views of the subject.

RESPONSIBILITY RESTRICTED BY INSANE DELUSIONS. By T. L. Wright, M. D., Bellefontaine, Ohio.

This interesting paper is a reprint from the *Cincinnati Medical News*. The paper evinces extensive research on the part of the author, and is enriched by numerous citations of cases and opinions of experts. The author endeavors to show that the degree of responsibility in the partially insane is less than is generally supposed.

THE THERAPEUTIC GAZETTE. Wm. Brodie, M. D., editor. Geo. S. Davis: Detroit.

The January number begins the first volume of the new, and the fourth volume of the old, series. The journal is stated to be devoted to therapeutics and the introduction of new therapeutic agents. The number before us contains many interesting articles, the most valuable of which is a paper on Water, by Prof. A. B. Prescott, A. M., M. D., of Ann Arbor. Like everything else which Prof. Prescott writes, the paper referred to contains much useful and well-digested information on the subject treated.

VALEDICTORY ADDRESS. By W. F. McMitt, M. D., etc. San Francisco, Cal.

This is a wide-awake paper, and deals with one of the most interesting questions of the day, the sanitary education of the people, particularly the young. The author asserts his belief that a great share of the mental, moral, and physical misery in the world is due to "ignorance, apathy, and avarice; ignorance of anatomy and physiology; ignorance of the chemistry of digestion; ignorance of the laws of health;" with which we fully agree, as also with his protest against "requiring a young man to spend the spring-time of his life in learning to translate a few pages of Greek and Latin; teaching him that the knowledge of the construction of a Latin sentence is of more importance than a knowledge of the construction of his own body."

We thoroughly believe in education, in all departments of knowledge; but it seems to us a patent fact that the most important and most useful knowledge should be imparted first. In following the popular educational programme, children learn arithmetic, grammar, history, and often physics and metaphysics, long before they are taught anything about themselves. The proper plan would be to begin to teach children the science of man as illustrated in themselves, before teaching them anything else, continuing the course of instruction in that important science throughout their whole educational life.

Publishers' Page.

Several thousand subscriptions to the journal have already come in this year, and still they come. We are delighted and encouraged to see that our friends are waking up so thoroughly and responding so heartily. Keep at work, friends, for a few weeks longer, and we shall be able to make a magnificent report of excellent work accomplished by you.

The Sanitarium is prospering finely. It has never been fuller at this season of the year than at present. There is every prospect of a very large patronage during the coming season. If each of its friends will take the pains to call the attention of those who should visit such an institution to the facilities which are there offered, and which are unequalled elsewhere, they will do many sufferers a very great favor.

The Teetotal Certificate pleases every one who sees it, and all seem to feel amply repaid for the patience which they have had in waiting for it. All who have signed the teetotal pledge, becoming full members, should recollect that they are entitled to the Health and Temperance Quarterly Supplement to GOOD HEALTH free if they are subscribers to the journal. The next number of the H. & T. supplement will be particularly spicy and interesting. We hope to make it so interesting that every pledge member will want to become a full member at once, and a subscriber to GOOD HEALTH, so he can receive it.

AN ENCOURAGING WORD.—An old subscriber writes from Ohio as follows:—

"I want to express my appreciation of GOOD HEALTH. I regard the journal as most excellent. Its monthly visits are prized highly, and its pages perused with increasing interest. Either I am in a condition to better appreciate the journal, or else it has materially improved during the last two years. I have spent two and one-half days canvassing, and obtained fifty names."

It does us good to receive a word of encouragement occasionally. We are always anxious to know how our friends like what we send them each month. We do our best to prepare a hygienic feast of the very choicest of mental food in our particular line, and we endeavor to make some improvement from month to month, and year to year. We hope that both reasons suggested by our friend for his increased appreciation of the journal are true. We must not omit to remark that the kind of appreciation shown by this gentleman is the sort we like. It is of a practical kind, and if one-tenth of our patrons will do as well, we shall add many thousands to our list in a very few weeks. We shall be pleased to hear from others of our friends.

In answer to many inquiries, we will say that we are making excellent progress with our work, and hope to be able to return to our other labors soon. We are having beautiful weather, though rather warm for this season of the year. The winter here is quite a failure. Our perihelion friends must be greatly disappointed in not having the prediction fulfilled, according to which the present ought to be the coldest on record. But perhaps they will take comfort in the Irish famine. We may, however, disabuse their minds on this point also; for we heard Mr. Parnell remark the other evening that the English lords—not the perihelion—were responsible for the famine.

We have had the pleasure of meeting several hygienists here, and shall to-morrow evening, Feb. 16, attend a meeting of the Women's National Health Association, the first organization of the kind in the country. Mrs. M. Cora Bland is the president.

Our present address is 601, 13th street, N. W., Washington, D. C. J. H. K.

The parlor entertainments at the Sanitarium on Thursday evenings, are an interesting feature of home life among the patients. The musical talent of Battle Creek, with which few cities are more highly favored, cheerfully lend aid to make these entertainments pleasant, and with vocal and instrumental music, readings, etc., the happy hour passes all too swiftly away.

"DIPHTHERIA."—The call for this work during the past two months has been very great, the second edition being entirely exhausted, and a third pushed rapidly through the press to meet the demand. This means, not merely increased business for the publishers, but the diffusion of important information among the public, which we trust will prove timely and valuable. We hope that thousands more of the work will be sold. Price 25 cents.

It may be a gratification to many of the new patrons of GOOD HEALTH to learn that there is a vigorous organization of sanitarians, scattered all over the country, who may be counted by thousands, and who take the liveliest interest in the prosperity of this journal.

OMISSION.—By mistake we omitted to give credit for the poetry on page 43 of last number to "Sanitary Tract," published by the Women's Sanitary Association of Great Britain.

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3.18	11.10	2.15	1.28	-	-	-	12.19 1.55 12.50 2.20
2.28	10.28	1.40	12.33	-	-	-	1.15 2.37 1.38 3.02
11.30	7.40	11.15	9.25	-	-	-	4.30 5.20 4.35 5.55
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