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SANITARY IGNORANCE AMONG HIGH AND LOW.*

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It is a hazardous undertaking to set out to tell people how ignorant they are, and I risk some such another commentary as once reached me, *sotto voce*, from an indignant listener in an audience to which I was denouncing the hour-glass-shaped abomination to which women cling as tenaciously as they make it cling to them: "He would look a great deal better if he had one on himself." Look thyself into the mirror which thou holdest before me, is not unreasonable retaliation upon the one who goes about pointing out notes in others' eyes. However, I do not mean to claim that I am one whit wiser or better than my fellows, but willingly don sackcloth and ashes with them, and join in the chorus of confession that we are all miserable sinners,—as I hope to show we really are; and here, that I may have my gentler auditors, at least, feel not unkindly toward me, I may premise that I do not propose to single out the weaker half of humanity as targets for invective, and deal them ungallant blows that they cannot return if they would; and hence I leave the fertile themes of corsets, high-heeled shoes, phantom under-clothing, and other feminine follies for some bolder cynic.

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Without further preface, then, let us together glance cursorily over some of the leaves of the book of knowledge, which, doubtless, we all have read, and which we ought, therefore, to know all about, but which we have forgotten to keep in mind or put in practice. Such an inquiry is most opportune; for the gradually increasing attention given to sanitary matters, which is very greatly the result of the work of the American Public Health Association, has been quickened by the well-grounded fear of the epidemic prevalence of cholera. State boards of health are being strengthened, and established where they have not heretofore existed. Local boards are being burnished into working order, and a Sanitary Protective League of Citizens has been organized in the city of New York, which is the Gomorrah to the Philadelphia Sodom of sanitary ignorance and evil-doing.

But whence is it that in this nineteenth century of civilization and enlightenment, there should be such a degree of sanitary ignorance as to furnish occasion for this sanitary revival? If I mistake not, this very civilization, especially this Christian civilization, of which we are so proud, is at the bottom of our want of knowledge and misdoing. It is a cardinal tenet of our belief that the world and the flesh and the Devil are the three especial things to be abjured. I shall not undertake to be the advocate of the personage last mentioned, nor will I at this time enter my earnest protest against the wholesale contemning of this fair world of ours; but I do most energetically insist that this despising of the body is the foundation of all the sanitary ignorance which has filled the earth with disease and crime. I am very well aware that the

theological significance which learned divines give words, is not always their literal sense; but double meanings are foreign to the genius of our pure Saxon tongue, whose ringing monosyllables mean just what the humblest hearer of them understands them to imply. The condemnation of the human body as something too gross for human consideration, is the logical sequence of the denunciation of the flesh as utterly vile and sordid; and man has been led to torture and maim and degrade it as the surest way of winning favor with the Almighty Creator, although he formed it, we are taught, in his own image and likeness. The mediæval acceptance of the doctrine, filled cloisters with very dirty, however pious, monks and nuns; and though the gospel of uncleanness has been less fervently preached in our day, it is rare, even now, to find a preacher as orthodox as Dr. Cuyler, to dissent from good Isaac Watts when he invites us to join in hymning: "What worthless worms are we!"

I suppose the assertion will hardly be contested that man is the acme of all created things; and what is man apart from his corporeal expression? Is it possible to conceive of him except as we know him in the flesh? His psychical abstraction is evolved out of the substratum of his physical individuality. He can only be identified by his material form and substance; and this we know to be the most marvelous and complex, the most mysterious and beautiful of all the objects in the universe. The most superficial student of nature cannot but regard with awesome admiration this inimitable mechanism. Follow it from its beginning, in the conjugation of two microscopic cells, and their amalgamation into one, which thence develops into embryo, fetus, infant, and adult man or woman,—he whose dominion is over every living thing that moveth upon the earth, she who embodies the imagination's highest ideals of surpassing loveliness,—is this a thing to be despised and loathed? The ignoring of the importance, grandeur, and beauty of the human body is common to both educated and uncultured. The latter does not know, the former does not reflect, that the conscious egotist has no demonstrable existence independent of the aggregation of organs and apparatus which constitute the body. The spirit tenant might chafe unheard, unfelt, unknown, if the avenues of the senses were all closed, and consciousness, emo-

tion, thought, were never manifested—if the brain, out of which they are evolved, were not rightly formed.

Cerebral localization is an assured fact in modern physiology; and the advanced neuropathologist can point to the very spot where the insane fancies of the morbid mind have their origin. If a little patch upon the brain, or a tiny clot within, can transform the man of genius into a driveling idiot; if an insignificant break in the course of a nerve trunk can convert the athlete into a helpless mass, or an almost imperceptible defect in one of the organs of the senses be enough to shut out all knowledge of which that had been the gate, how watchful ought to be our care of this wondrously complicated structure! Islets and atolls rise from the sea, the work of swarms of insignificant zoophytes; likewise multitudes of microscopic living cells course through vessels so small that they scarce allow their passage, carrying the material out of which other tiny workmen build the archipelago of the brain. Cripple or thin out these little builders, give them no straw or only wretched clay with which to mold their bricks, choke up these narrow lanes through which they must reach their destination, and the building can neither be sightly, sound, nor stable; and what is true of one organ is true of all.

A well-conditioned body must have all its parts well-developed and be kept well-nourished, and only such a body, so soundly constituted, can properly perform those functions whose sum is what we term life, and whose harmonious action is what we mean by health. A broken arm can as well wield a hammer as a morbid brain secrete healthy thought, or a diseased sensorium reflect a normal sensation. The *mens insana* is the product of perverted physical conditions, and in most instances these are imputable to human ignorance and folly. Man, then, being known to us by this bodily presence, which is creation's masterpiece, and which must be sound in structure in all its parts, that their manifold offices may be well performed,—one would think that no persuasion would be needed to make this self-conscious, reasoning creature zealously guard from harm this mechanism which makes him what he is. Yet in truth, this life of the body is one long course of shameful ill-usage, and it may be profitable if you and I reflect upon some of the instances in which, in

common with our neighbors, we have willfully neglected our bounden duty to ourselves.

Were I to pick out the most heinous of our offenses against the body, I should single the neglect to properly nurture it as the one pre-eminent, and every rotund auditor here mentally exonerates himself from that fault; but man does not live by bread alone, nor by fish, flesh, and fowl. The solid components of his body are few and small beside that one all-pervading gaseous element which nature provides for him without stint or cost in the air which surrounds and permeates every tissue of his frame, and he is niggard of it because of its very abundance and cheapness. High and low, rich and poor, the wise man and the fool, revel in ignorance of the absolute need to health of a limitless supply of fresh, pure air. Their dainty stomachs will reject unsavory food, and their delicate hands will shrink from the touch of unclean things; but they will greedily and recklessly take into their lungs, to be incorporated in themselves, viler nuisances than any of the visible filth they have smelt or touched or tasted; for notwithstanding its aeriform condition, it is as much filth as the fetid ooze of the sewer or the solid putrescence of decomposition. The living germs of disease, the effete particles of human waste, microscopic impurities volatilized by heat and moisture, fill the air, and are wafted to and fro by its ever-shifting currents.

To realize how these intermingle, watch the little clouds of condensed vapor which on a winter's day are emitted from the mouths and nostrils of a lot of passengers, to be again inhaled into some neighbor's lungs; and you all know how far off, even in the open air, you can sniff the fumes of a rank cigar. Pack the crowd a hundred-fold denser in some fashionable drawing-room, where gas jets and furnace contribute to further befoul the air, and though the circling clouds of germ-laden, mephitic vapors are not visible, are they not there? Do not the bejeweled, satin-clad belle and the beau *en grande tenue* breathe with unconcern a vile mess of abominations, which, given shape and color, would be a sorry counterpart to their affected refinement? Yet you may see very learned judges, very profound literati, very sapient doctors, wedged in this same seething mass of humanity, seeking what they call pleasure. There are those high in station, the favorites of fashion, society's select few, who in con-

temptuous ignorance of the plainest sanitary teachings, imperil health because others do likewise.

This is no rare spectacle. It may be witnessed in the finest salons in this city, where the highest social enjoyment which unlimited means provides, is the massing of human beings in fine clothes in a dense jam, where every possible sanitary law is set at defiance, where the fragile woman discards her accustomed under-clothing for unaccustomed exposure, and is loaded with what the appetite does not crave nor the body require, and where the organic exhalations from the lungs and skins of hundreds of human beings are commingled with the products of respiration and combustion to make an impure atmosphere in which they revel for hours. There will be headache and lassitude and *malaise* on the morrow, which in this locality will be attributed to malaria—*mal air*, indeed,—air surcharged with microbes and zoospores, and what not else, but nevertheless not the malign and maligned air of the marsh. Recall the racking pain and nausea experienced after an evening of this sort, and then ask yourself if you are one whit less blameworthy than the red-eyed, swollen-visaged victim of Bacchanal indiscretion. The one is being tortured for the villainous hydro-carbons he has forced upon his blood through his stomach; the other is just as deservedly tormented for the no less abominable compounds with which he has loaded it through the lungs. Is the folly of the well-bred, high-born *habitué* of the salon any less an exhibition of sanitary ignorance than the insensate indulgence of the low frequenter of the groggery?

Nor are kettle drums, teas, or evening routs and receptions, the only occasions when the blood is deliberately poisoned by foul air. The words of the gospel are wafted to the listening sinners' ears on waves of air not less offensive for being the atmosphere of a crowded church. The judge sits in a court-room where the poison of *ochlesis* can be tasted as well as smelled. From the galleries of the halls of Congress, one can sniff the living vapors which the reverend senators and representatives breathe. Wherever human beings are aggregated,—in church, in court-room, in legislative hall, in theater or lecture-room,—there is the same heedless, ignorant disregard of what should be the first demand upon the architect,—such a system of ventilation as will secure to every individual the supply of oxygen his

health imperatively demands. It is the last thought of the builder; for beauty of the *façade*, the splendor of the internal decoration, the comfortable seats, the brilliancy of the illumination, and especially the capacity of the heating apparatus, are the allurements which first attract the frequenter. Even in dwelling-houses, windows are luted, doors doubled, every chink and cranny filled to keep out the cold, though in doing so every inlet of fresh air is closed.

Where provision is made to warm the air admitted for ventilation, this is either drawn from the cellar or immediate surface of the ground,—both objectionable, especially in malarial localities,—or it is overheated till all its water is driven off, and its organic constituents are partly burned; or, as in one recent instance in my knowledge, the apparatus for heating the entering air is in convenient proximity to the open vent of a sewer, and how far this influence extends, both sight and scent will indicate, if you but watch the course of the rising clouds of foul-smelling vapor from a corner inlet on a frosty day. That it is not soldierly bravery, defying danger, but stolid ignorance of its existence, which is the explanation of the indifference of the general public to the purity of the air they breathe, is proven by the liveliness of their fear of draughts, which these very people manifest when a door or window is opened, and its effect felt. Intelligent men and women placidly sit in railway cars, in which every ventilator is closely shut; and whoever has the hardihood to open a window to give his own lungs momentary relief from the burden of foul air, is sure to excite the ire of some pallid, shivering creature, whose frail body has been made so, in all probability, by the very means used to avert sickness. It is always some living cadaver, hollow-eyed and hungry-looking, wrapped to his eyes in a muffler, who hastens to shut the door left open by another who has the commendable habit of never closing one. To appreciate what men can endure without complaining, observe the thick, offensive atmosphere they deliberately breathe by the hour in a crowded smoking-car. They would scorn to drink water not so foul, and rather not bathe at all than use it for the purpose.

De Chaumont has shown from a large number of observations that the sense of smell, carefully employed, gives a fair idea of the amount of impurity in an air-space, and that the scent of organic matter is

perceptible to this sense before the coincident carbonic acid gas due to respiratory or personal impurity, reaches two parts in ten thousand, which may, therefore, be assumed to be the measure of the maximum amount of such impurity admissible in any properly ventilated place. When this reaches nine parts, the organic matter is so great that the air is oppressive and offensive, and the limit of differentiation by smell has been reached. The apartment is what is ordinarily, but most inexpressively, termed "very close;" and however much greater the impurity, it is still nothing more than a close room.

Now in smoking cars, Nichol's analyses show an average of nearly twenty-three parts in ten thousand, and this is not incredible when you reflect that the average air-space per individual in a railway car is only about forty cubic feet; while a human being requires a supply of over fifty cubic feet of fresh air a minute to maintain it in good respirable condition. Even in so great an air-space as ten thousand cubic feet per head, the limit of admissible impurity will be reached in a little over three hours; but passengers will sit and sleep for many hours in these cars, with every door, window, and ventilator closed, and gas-jets or oil-lamps each consuming almost as much air as the human burner, and carry away with them the germs of insidious maladies that afterward develop in what, at the time of their outbreak, is considered a most unaccountable manner.

The multiplication of the comforts of civilized life is doubtless greatly to blame for the enervation of the wealthier classes. Overheated and ill-ventilated dwellings and places of resort and recreation, stuffy and foul-smelling street cars, that are used however short the distance to be traveled, that monstrous abomination, a Pullman sleeping-car, which a century hence will be exhibited in illustration of the crudeness of these times,—these and other contrivances to secure ease and luxury combine to keep the individual breathing the greater portion of the day a vitiated atmosphere, which saps his vigor, and leaves him a prey to any of a dozen maladies.

I once resided in a neighborhood famed for its social inimitability, and having many occasions to leave the city at a very early hour in the morning, I observed that my own were the only chamber windows in block after block of residences, that had been left open all night, and sub-

sequently, when I expostulated with some who were acquaintances, they insisted that night-air was mal-air, and must be kept out, without reflecting that day-air was not then to be had in-doors, even were it of better quality, and that gas-lights, furnace-fires, water-closets, and human exhalations, with possibly the added contributions of pet dogs and cats, made a mess that no marsh-product could compete with. Is it not lamentable sanitary ignorance which, in trying to steer clear of the Scylla of intermittent, wrecks one's barks on the Charybdis of diphtheria and typhoid?

But what shall we say of that other product of modern civilization, the unventilated school-house? I use the adjective descriptive, not distinctive, for all school-houses are unventilated. The prowess and prestige of a race depend upon its physical vigor; and the foundation of this is laid during its childhood and adolescence. One does not expect prolific fruits from withered branches, nor fine cattle from scrawny, ill-favored young; but the human race is recruited at the veriest haphazard. The male inheritor of a line with constitutional taint, mates with another endowed with kindred or dissimilar evil tendencies, and the resulting offspring are cursed with both. Your daughter's fancy, which opposition only intensifies, selects as the husband of her choice one who bears within him the indestructible seeds of congenital or acquired disease, which will consume both her and her wretched progeny, and whom it were better she should die than wed. Your son's whim makes one the object of his passionate longing, whose fragile body, stripped of the artifices of dress, caricatures that womanhood whose maternal duties she is unfit to assume, and whose marital responsibilities she is unable to fulfill. From fallow, attenuated, spindle-legged young men as fathers, and flat-chested, fleshless, weak-backed mothers, what manner of children can come into being?

But the deplorable sanitary ignorance that leads to these results does not stop with this. Although the aim were to do the greatest possible harm to the greatest possible number, and thus retard overpopulation in a way Malthus never contemplated, even the hardy youngling is sent to school to be poisoned by bad air, and succumbs sooner than his feebler companions, whose very ailments make them tolerant of other harmfulness. To appreciate the unwholesome atmosphere the

children of this day breathe, let any man or woman with lungs fit to perform their healthy office—for the valitudinarian is himself a poor judge of sanitary matters—enter the school-room after it has been an hour occupied. The mawkish odor of over-respired air, recognizable by one coming from outdoors, is not sensible to the superintendents and instructors, who are themselves immersed in it; but its lethal influence is written, as the term advances, in the pallor and tired looks of themselves as well as the children, and is attributed to excessive study or application.

Now, all this is not mere exaggerated fancy. Dr. Bryce, Secretary of the Provincial Board of Health of Ontario, states that, of the five-thousand children attending school in Hamilton, in the year 1882, six-hundred were absent during the month of January, as many in February, in March slightly more, in April a few less, and in May, when the windows could be opened, and the fire in the stove was out, the number reported fell suddenly to fifty per cent of the previous month. In June it was still lower. In September, after the holidays, a small number only was reported sick. In October, when the fires began, the number ran up, and crept up until in December it attained the highest point in the year. One child in every ten had been made sick by going to school, and this is not an unfair assumption when we know that the average floor space of these children was only eight feet, in one school only two and a half feet, a condition of things for which no degree of education can be compensation.

TO BE CONTINUED.

CARE OF THE PERSON AND CLOTHING OF THE SICK.

BY KATE LINDSAY, M. D.

It is necessary that the person and body linen of the sick should be kept clean. To insure this, the patient should be bathed frequently, and the linen changed, aired, and washed whenever it becomes soiled. To accomplish this, as well as change the bedding at the least expenditure of vital force, is very important in the case of every feeble patient.

Many patients sick with intermittent, remittent, and continued fevers, and others suffering from consumption or other chronic diseases attended with destruction of tissue and suppuration, suffer from chills or chilly sensations at some time

during the twenty-four hours. No attempt should be made to change the clothing or give a bath at such times, as the necessary exposure and extra exertion would tend to aggravate the chill, and increase the temperature of the fever sure to follow in the period of reaction. Most frequently, but not always, the chill in these cases is in the early part of the day, and the fever and sweating in the afternoon or evening.

Cool sponging during the stage of fever is often very refreshing, and tends to moderate the temperature; while a bath and clean, dry linen and bedding are always refreshing after the sweating stage. I have often seen restlessness and tossing cease, and quiet slumber succeed the simple cleanly process of changing bedding and body linen. By carefully watching the patient's symptoms, the nurse will soon find out the time in the twenty-four hours when he is feeling best and most able to undergo the exertion necessary for bathing and changing of linen. Care should be taken not to disturb him if he is inclined to sleep. In some cases, a sponge bath every day, or even much oftener, is needed. In all cases, cleanliness demands that the whole body should be washed and linen changed at least once or twice a week. Two night-dresses are better than one; each should be worn twelve hours, and when not in use, be airing either out-of-doors or in some dry, well-ventilated room where there is a fire, in damp, cold weather.

When the patient is feeble, every device should be used to spare him all extra exertion. Having selected the proper time to give the bath and change the linen, get all things in readiness without any hurry or noise on your part; for it will annoy and disturb the patient. Do not begin until everything likely to be needed is at hand. Warm water, soap, towels, sponge, etc., also a warm blanket, and two extra sheets or long, thick towels, to cover the patient, and to protect the mattress from dampness. The night-dress and other linen should be airing and warming so as to be in readiness when needed.

Begin by unbuttoning the night-dress, which should always be made so as to open clear to the bottom. Push well up toward the head; and slip the left arm out; then raise the head, and gently push toward the opposite side; slip out the right arm, raise the shoulders, and remove. Cover the patient with the warm blanket, tuck the extra sheets or towels down

close by his sides, and begin by washing his face and neck. The arms, chest, abdomen, sides, and legs may be all bathed without any change of position. Then slip the arms well under the patient, and turn gently on the side, when the back parts of the body may be cared for; before the patient is again turned upon his back, the night-dress may be slipped over the left arm, and arranged so as to be smooth and free from wrinkles. If it is pushed well under, and is wide between the shoulders, it will not be much trouble to get the other sleeve on. The changing may be done from right to left as well as from left to right if both sides of the bed cannot be reached, or the bed is wide, and he is on the right side.

By having a method about doing the work, the nurse will not find it necessary to fatigue the patient by frequent turning. In all cases where the skin is harsh and dry, or there is an eruption or scaling, as in scarlet fever, measles, and other eruptive fevers, a small amount of vaseline, cocoanut-oil, or some other mild unguent used as an unction, is very useful, rendering the skin soft and pliable, and preventing the spreading of infectious diseases by preventing the scales becoming detached and flying about in the atmosphere of the room. A lotion made by pouring a pint of boiling water over an ounce of oatmeal, letting it stand until it cools, will answer the same purpose, and is said to be especially useful in cases of scarlet fever. Care must be taken not to use the unguent too freely, or it will make the skin feel sticky and unpleasant to the patient, and soil the clothing and bedding. We remember our own experience in ordering a child sick with measles to be anointed with vaseline, without giving definite instructions to the old lady who was nursing it. On our next visit, we were decidedly surprised to find that she had used the contents of a two-ounce box for one unction on a seven-year-old child. The clothing and bedding were saturated, much to the discomfort of the little patient, who was decidedly prejudiced against the treatment of measles by unctions.

When the patient is likely to be sick a long time, especially with fevers and other severe acute diseases, attended by cerebral disturbance, in the case of a lady it is better to cut off the hair, as it is difficult to keep it from becoming matted if it is very thick and long, and in such cases it usually comes out during

convalescence. In cases of temporary illness, and normal confinement, it is best to comb out the hair every day, and arrange it in two loose braids.

Sponging the face and hands several times a day is always refreshing to the patient. In severe fevers of a low type, the teeth, tongue, and lips are often covered with a dark-colored exudate, called *sordes*; and the tongue and lips become chapped, the mouth tastes bad, and the breath has a foul odor. To obviate these conditions as much as possible, the teeth and mouth should be swabbed out with some disinfecting solution. A weak solution of carbolic acid and glycerine, about one part of the acid and glycerine, equal parts, to one hundred parts of water, or a saturated solution of chlorate of potash. The unpleasant taste can often be partially overcome by rinsing out the mouth with lemon juice well diluted with water; other acid fruit juices will answer the same purpose. The chapping should be relieved by covering the parts with oil or glycerine. More will be given on this point in a future article on nursing of fever cases.

The night-dress worn by a very sick and feeble patient should not be either too long or full, as it often annoys the patient by becoming disarranged and wrinkled, and in the way when the evacuations are involuntary. The old-fashioned chemise, so often worn by ladies when confined in bed by illness, should be entirely discarded. From the make-up of this garment it is difficult to change, and does not protect the neck, shoulders, and arms, which are the parts of the body most exposed to draughts when the patient is in bed. Soft cotton is the best material for sick-bed garments. They should not be rendered unyielding and uncomfortable by starch. After convalescence takes place, and the patient is able to be out of bed a part of the time, a warm flannel dressing-gown, sacque, slippers, and stockings should be at hand ready to slip on easily. They should be simple in make-up, and as light as consistent with the necessary warmth and protection. The finger and toe nails should be kept neatly trimmed, and all the minor details of the toilet needed to insure perfect cleanliness duly attended to. These may seem like little things, but most of our lives are made up of little things.

—When you let the sunshine in, you drive the doctor out.—*Italian Proverb.*

TOBACCO.*

BY MRS. A. G. BURNHAM.

GEOGRAPHY teaches us that the ocean has its tributary streams, greater and lesser; these are formed by fountains, rivulets, and rills. So the ocean of Intemperance has its small beginnings and its larger sources; but its greatest tributary is Tobacco. Statistics show that this source of intemperance is steadily increasing; and now the great question of the day is: How can the nation be freed from this curse? It is a fearful fact that the iniquity of past generations is visited upon us, and it will take generations to wholly eradicate the evil.

It is plainly our imperative duty to agitate this subject until the Lord opens the way for more aggressive work. We, the mothers, must inform ourselves, that we may be able to instruct our sons (and daughters as well) concerning the evils of this poisonous narcotic. We take it for granted that ignorance in regard to the effects of tobacco on the human system, has much to do with the existing state of affairs. Smoking has become a national vice. The young man who does not smoke is almost considered as an exception to the general rule; and it is distressing to find that this debasing habit is kept in countenance by some of our young ladies who "delight in the smell of a cigar." Women, and especially young women, have it in their power to do great service to the cause of temperance, and by influence they can do much toward hastening reform in this matter.

Many years ago, the Rev. Timothy Flint said, "If this world is ever to become a better and a happier world, woman, properly enlightened, aware of her influence, and disposed to exert it aright, must be the prime mover in the great work."

We trust the day will come when tobacco shall be ranked with poisons, and labeled accordingly.

It is impossible in so short a paper to say all that can and ought to be said on this subject; but the facts stated herein are nearly all gathered from the careful investigations of medical men.

Tobacco is said to be the most destructive weed in the vegetable kingdom; it destroys the soil in which it grows, and (what is far worse) it destroys a man's mental and moral faculties; in fact, it destroys everything with which it comes in

* A paper read before the Health and Temperance Society of Otsego, Mich.

contact. Absolutely nothing can be said in its favor. Even for killing insects on our plants, some other poisons can be used with more satisfactory results. Dr. Long, of Ionia, says, "It is not entitled to a place in medicine, and is no more worthy of cultivation than the deadly Upas of Java." "Its use is chiefly confined to man, and the worm which inhabits it."

To acquire the tobacco habit, young men must endure untold misery and wretchedness; but they willingly suffer. For the worthy purpose of appearing manly, they must learn to handle gracefully this fashionable poison.

The settlement of Virginia reveals the following fact in connection with the history of tobacco: In 1620, when the colony at Jamestown (wholly composed of men) had been established about thirteen years, ninety women of respectable characters, but of humble origin, were imported from England, and sold to the planters at Jamestown for wives, at the rate of one hundred and twenty pounds of tobacco, valued at fifty cents a pound, for each individual so purchased. During the next year, sixty or seventy more were sent over, and sold for the same commodity; but the price had been advanced to one hundred and fifty pounds per head. The first slavery, therefore, in Virginia was the slavery of whites,—of the wife to her husband,—and the first exportation of tobacco was for the singular purpose of purchasing companions for life.

In our day, tobacco has become the tyrant, our men and boys the slaves bound with fetters stronger than brass; but, strange as it may seem, they scarcely realize their hopeless thralldom. Dr. Payson said of the unconverted man, that, like a bird tied by a silken thread, he did not know he was a prisoner until he attempted to escape; so it is with the slave of tobacco. It requires a mightier effort to give up its use, than that of ardent spirits.

The use of tobacco paves the way to drunkenness. We are told that one of the usual effects of smoking is thirst,—a thirst which in numberless instances cannot be satisfied with anything short of alcoholic drinks.

I am well acquainted with a so-called temperance man who fairly devours tobacco, which causes such an intense craving in his stomach, that he often drinks clear alcohol, which of course increases the inflammation. Then the doctor is called, who pronounces the trouble to be heart disease.

Tobacco not only leads to intemperance, but it also produces disease, and hastens the development of hereditary diseases, such as apoplexy, epilepsy, consumption, cancer, and insanity. Many a promising youth has fallen a victim to consumption, as the result of his inveterate habit of smoking cigarettes.

The great increase of dyspeptics among us is largely attributable to the use of tobacco; yet there are thousands of men who firmly believe that they cannot digest a meal until they have indulged in a smoke,—as if the Lord had so imperfectly constructed the stomach that it could not do its appointed work until aided by this noxious weed.

The men who reach old age notwithstanding their excessive use of this poisonous drug, bear but a small proportion to those who have been swept into the grave in early or middle life by its means. Statistics in Germany go to show that of the deaths occurring among men in that country between eighteen and thirty-five years of age, one-half die from the effects of smoking. Tobacco is especially harmful to the young. A distinguished French physician, M. Decaisne, has investigated the effect of tobacco on thirty-five boys, between the ages of nine and fifteen, who were addicted to the habit, and twenty-seven presented distinct symptoms of nicotine poisoning. In twenty-two, there were serious disorders of the circulation, dullness of intellect, and a marked appetite for strong drinks; in three, there was heart affection; in eight, decided deterioration of the blood; in twelve, there was frequent bleeding at the nose; ten had disturbed sleep; and four had ulceration of the mucous membrane of the mouth. Even the "Organ of the Tobacco Trade" admits that "Few things could be more pernicious for boys, growing youths, and persons of unformed constitutions, than the use of tobacco in any of its forms."

Dr. Graham says, "Tobacco is one of the most powerful poisons in the vegetable kingdom; its effects on the living tissues of the animal kingdom are *always* to destroy life, as the experiments on pigeons, cats, and other animals abundantly prove."

Let us note some of these experiments: Dr. Franklin ascertained that the oily material which floats on the surface of water after a stream of tobacco smoke has been passed through it, is capable, when applied to the tongue of a cat, of destroying life in a few minutes. Soldiers have been known to unfit themselves for duty by

placing a few moistened tobacco leaves in the armpit. Dr. Mussey says the tea of twenty or thirty grains of tobacco, introduced into the human body for the purpose of relieving spasms, has been repeatedly known to destroy life. He also relates the case of three children who died in convulsions after having the head rubbed with a liniment made of tobacco, in the hope of freeing them from the scurf.

The Indians of our country were well aware of the poisonous nature of tobacco, and were accustomed to dip the heads of their arrows in an oil obtained from the leaves, which, being inserted into the flesh, occasioned sickness and fainting, and often convulsions and death. Two drops of nicotine, or oil of tobacco, will kill the largest and fiercest dog in a few moments; and small birds perish at the bare approach of a small tube holding it.

Many of us can testify that the smoke of tobacco is a deadly poison; yet nowhere are we secure from its intrusion. It has become a part of our surroundings; the very air we breath is polluted with the vile odor. Groceries are brought home in tobacco-scented paper; our letters and newspapers are tainted with stale tobacco smoke. When we go to the depot, the most prominent feature there will be a large iron spittoon or two standing in a convenient position for tobacco chewers. Step on board the cars, and the ever-present tobacco will be there, with all its attendant filthiness. Physicians bring the vile abomination into our sick-rooms, often doing the patient more harm than good by their visit. We find the evil in the pew; we even find it in the *pulpit*. What inconsistency for a minister of the gospel to exhort his hearers to forsake their besetting sins, while at the very moment he has a quid of tobacco hid like a sweet morsel under his tongue. At our prayer-meetings we are annoyed and disturbed by the foul breath and mumbling, faltering speech of men with their mouths full of tobacco. We dare not question their Christianity; but we are led to wonder how they dare approach the throne of grace, in the holy name of Jesus, with such polluted lips.

King James I., who in the year 1600, soon after the introduction of tobacco into England, wrote a treatise against it, says, "It is hateful to the nose, baneful to the brain, and dangerous to the lungs." He also represents its "black, stinking fumes" as nearest resembling the "horrible Stygian smoke of the pit that is bot-

tomless." Truly, we can indorse his words.

It is a well known fact that the use of tobacco tends to make men utterly unmindful of the comfort of others, and those who use it are exceedingly inclined to a neglect of cleanliness. Jeremy Taylor tells us that "cleanliness is next to godliness." John Wesley called the use of tobacco an "uncleanly and unwholesome self-indulgence." The Bible says (1 Cor. 3:16), "Your body is the temple of the Holy Ghost," and "If any man defile the temple of God, him shall God destroy." But because sentence against an evil work is not executed speedily, therefore the heart of the sons of men is fully set in them to do evil. There is no hope of reform until men learn that the use of tobacco is *sinful*.

It is an encouraging fact that religious denominations have become thoroughly awake to its enormity, and are taking measures to suppress the vice.

In June, 1883, The Evangelical Association of Germany held their Conference at Stuttgart in Wurtemberg. Then and there they adopted the following resolution: "Inasmuch as the use of tobacco promotes drunkenness, and is degrading; therefore, we will use all our influence against this evil." "The use of tobacco is to be absolutely prohibited in all the Government schools in France, on the ground that it affects injuriously the ability to study. The regulation is based on the recommendation of a commission of men of science, and meets with general approval."

Another generation is slowly but surely following in the wake of the present, inheriting tainted blood and depraved appetites for the vile stuff. Something must be done to save our boys; but how can we expect them to heed our words of warning while they have constantly before them the example of their elders? So long as smoking and chewing are paraded as manly virtues or "winked-at vices," just so long will they be attractive to the young. Dr. Shradly and other medical men say that "It is quite probable that the irritation of smoking was the active cause of the cancer" which hastened the death of our nation's great hero, Gen. Grant, who for many years has been held before the public gaze by newspaper men and caricaturists with the inevitable cigar in his mouth. Possibly the General's self-wrought affliction and death may prove to be a lesson, or warn-

ing, or perhaps a blessing, to the American public. It certainly demonstrates that God's laws cannot be broken with impunity. The intellectual, moral, and religious loss is beyond computation, as well as the time consumed in using it, and the consequent loss of time by ill-health, and we all know that waste causes want and suffering. Wife, children, and homes are in many cases deprived of necessities, because the husband and father must have tobacco.

FATIGUE AND INDIGESTION.

THE following wise remarks on this subject we quote from *Health*, an English monthly devoted to scientific hygiene:—

“Another cause of imperfect digestion is fatigue. When we start on a walk, it does not matter much whether the road be rough or not; any little obstacle is avoided with ease, and we thread our way over rough stones, through tangled heather, or over a quaking bog, without difficulty. Our nervous system is in full vigor, and preserves perfect co-ordination among the movements of the different parts of the body; so that one helps the other, and all difficulties are surmounted. But when we are tired, the case is very different; a little roughness in the road will cause us to stumble, and an unexpected stone may give us a sudden fall. The wearied nervous system no longer co-ordinates the movements of the various parts of the body, so that they no longer work together for a common end.

The same thing occurs with the various parts of the intestinal canal. The mechanism by which the acts of chewing and swallowing appear to act as stimulants to the circulation and nervous system, thus insuring the proper co-ordination between the functions of the mouth, the stomach, intestines, and liver has been described. But if the nervous system be exhausted by previous fatigue, or debilitated by illness, the requisite co-ordination may not take place, and indigestion or biliousness may be the result. How often do we find that the meal taken by a person immediately after a long railway journey disagrees with him, and either causes sickness or diarrhea, or a bilious headache! Forty winks after dinner is not always a bad thing; but forty winks before dinner is certainly much better.

How often do men who have worked hard all day, with their mental faculties

continually on the stretch, go home and have dinner forthwith! Exhausted as they are, how can they expect to digest properly what they eat? Almost the only saving point is, that many of them live some distance from their places of business, and have a short time during the homeward drive to sit still and rest. This is sufficient for some, especially for young men; but it is insufficient for elderly men, and they ought to make a point of having a little rest at home before dinner. Some men, unfortunately, are so misguided as to believe that exercise after a hard day's work will do them good; and instead of utilizing the little time they have for rest after a day's labors are over, they walk three or four miles, or take a tricycle-ride of several more, before dinner. The consequence is that, under the combined mental and physical strain, their digestion is impaired and their strength broken down.”

There is grave truth in these remarks, and they should be well laid to heart by those who are compelled to work at high pressure, and thus fail in that due repair of the bodily waste which lies at the root and foundation of all health. But mental emotions and the play of mind may in their turn produce disturbance of the body's duties in the way of food-digestion. Here, again, the views expressed teem with a common sense and philosophy which commend them to the thorough appreciation of those who find digestion to fail from the nervous influences that chase one another and career over the surface of the mental atmosphere:—

“Effects, somewhat similar to those of fatigue, may be produced by depressing or disturbing mental emotions, or bodily conditions. We know how readily excitement of almost any kind will destroy the appetite in some people, and depressing emotions will do it in almost every case. We not infrequently hear of girls in whom consumption appears to have been brought on by an unfortunate love affair. If we accept the view that consumption depends upon the presence of the tubercle-bacillus (or living germ), we might, at first sight, think that there can be little or no connection between consumption and disappointed love; but the depressing effect of the disappointment will lessen the digestion, impair the nutrition, and render the body more likely to afford a suitable nidus (or soil) for the bacillus.”

From this it would seem to be equally probable that various emotions affect special parts of the digestive system. A

strong impression of disgust may excite vomiting; compassion is said to produce movements of gas in the small intestine; worry is known to affect the liver; and Dr. Brunton gives some countenance to the popular notion that jaundice may be brought on through a mental cause, illustrated, for example, by anxiety. The old adage respecting the wisdom of maintaining an easy mind if we would grow fat, has, therefore, a physical basis. It is the surest of inferences that the mind and nervous system which are allowed to remain placid and unruffled, are most likely to be found presiding over a body and processes which respectfully live and act in a healthy and normal fashion. If care really kills us, it seems provable that its method of slaughter is largely that of destroying the harmony of those functions on which the proper nutrition of our bodies depends.

The foregoing considerations have paved the way for the discussion of the practical question that faces us at the close of the interesting lectures we have been engaged in reviewing. We have seen, in the first place, how very varied are the causes which produce the disordered states collectively known as "indigestion." The whole subject is a complex one, and these papers may have accomplished at least one useful result if our readers have been led to note that each case requires careful personal study before the exact cause of the digestive disturbance can be traced. There is no greater or more foolish error, against which one might be tempted to speak in strong terms, than that which prompts the idea that all cases and classes of indigestion are of similar nature and origin. It is this idea which encourages that detestable habit of indiscriminate drug-swallowing which characterizes our age. Given an ingenious "puff" of any drug or preparation, and the "great army of martyrs" (to indigestion) will fly thereto for relief,—only, of course, to experience the trebly bitter disappointment which attends the dashing down of hopes of renewed health and regained vigor. If people would only study, even slightly, the particulars of their mode of life, habits, diet, work, and other details, and acquire even a rudimentary knowledge of the physiology of digestion, we should at least find them infinitely less liable to pour drugs, of which they know little, into frames of which they know less.

Let us clearly recognize that there is

no panacea, no universal healer, no one unfailing remedy, no sovereign specific, for the many-headed ailment we have named "dyspepsia," or "indigestion." Those who labor under such an idea are only to be compared to the deluded persons who, believing in the absurdities of the quack, are found to purchase a pill or ointment which, if the ordinary statements puffing the wares in question are to be credited, will as readily heal cancer as cure consumption; as unfailingly cure scrofula as dissipate a tumor of serious nature. Recognizing the true and scientific aspects and phases of the digestive process and its disturbances, we shall be the better able to appreciate the nature of the means which are to be relied on for the relief of the latter conditions.

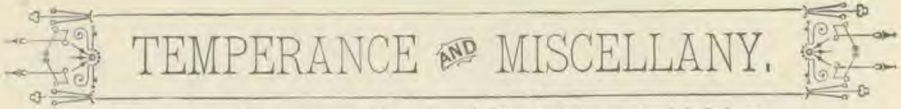
The Healthy House.—The healthy house is the one thoroughly penetrated and purified by the hygienic rays of the sun. In the houses of the wealthier classes, says the *Sanitarian*, there is too much luxury and elaborateness of furnishing and ornamentation; and sanitary precautions are made to give way to the multiplied artificialities of existence. Our civilization is becoming overdone. The tendency should be toward greater simplicity.

A noted physician of New York, in recognition of this fact, has caused his house to be re-furnished, and has, so far as possible, substituted polished surfaces, both in floors and furnishing fabrics, instead of the dust and germ-secreting carpets and upholstery, which he has discarded. Also any appliance which prevents the ingress of sunlight and air into every part of the house, during, at least, a portion of the day, he most vigorously and wisely condemns as a potent enemy to health.

The custom of surrounding dwellings too closely with trees and shrubbery, as often seen in village and country homes, is a most pernicious one; and in these damp and sunless rooms, it is no wonder that phthisis, rheumatism, and malaria find a fertile atmosphere for their development.

Another source of nervousness and lowered vitality, in connection with insufficient ventilation, is the extreme degree to which our houses, places of business, theaters, churches, hotels, and railroad cars are overheated in winter. This custom alone is sufficient to prevent Americans from ever becoming a robust people.—

Mother's Magazine.



TEMPERANCE AND MISCELLANY.

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

Conducted by Mrs. E. E. KELLOGG, A. M., Superintendent of Hygiene of the National W. C. T. U.

REAPERS OF LIFE'S HARVEST.

Ho! reapers of life's harvest, why stand with rusted blade
Until the night draws round thee, and day begins to fade ?
Why stand ye idle, waiting for reapers more to come ?
The golden morn is passing, why sit ye idle, dumb ?
Thrust in your sharpened sickle, and gather in the grain ;
The night is fast approaching, and soon will come again ;
The Master calls for reapers, and shall he call in vain ?
Shall sheaves lie there ungathered, and waste upon the plain ?
Mount up the heights of wisdom, and crush each error low,
Keep back no words of knowledge that human hearts should know ;
Be faithful to thy mission in service of thy Lord,
And then a golden chaplet shall be thy rich reward.

—Sel.

"A LITTLE LEAVEN."

BY ELEANOR KIRK.

"I BELIEVE in a broad eclecticism."

"I believe in common sense."

"I believe that there is always danger in radicalism."

"My wife is a radical, ergo she is dangerous."

Mr. and Mrs. Lancaster had been married about a year, and the above conversation occurred one morning at the breakfast table apropos of holiday festivities. Father and mother Lancaster and father and mother Leslie were expected to end the old year and begin the new with their children, and there had been no little discussion as to the wisest manner of entertaining them.

"Why, Fanny," the young husband responded with a laugh of genuine amusement, "I am not at all sure but my mother will pack her traps, and go straight home if you really insist on carrying out your program. From the first of November till the middle of January, ever since I can remember, our house has been redolent from cellar to garret with the odors of pumpkin and mince and brandies and wines and plum-puddings and—"

"No end of conglomerations," Mrs. Lancaster interrupted. "I know it, and it is no different at our house."

"But your folks are aware that you have turned over a new leaf, and will know what to expect, while mine—phew! I've been thinking, Fan, of getting the firm to send me South for the holidays. I really

haven't the strength of character to sit by and see this thing go on."

"I was in hopes that you would n't be a coward," said Mrs. Lancaster, with so marked an emphasis that her husband went off in another peal of laughter.

"Why, Fan," he said, "I could lead a forlorn hope, or face a whole tribe of tomahawking Indians, with more equanimity than I could take a seat at the head of my table with the bill of fare you have provided for our respected parents."

"I never saw a man yet who didn't profess himself ready to face a forlorn hope," was the smiling response.

"Joking aside, Fanny, I am honestly perplexed as to the right and wrong of this matter," Mr. Lancaster resumed. "I am not at all sure that it is our business to teach our fathers and mothers."

"But look at your stomach that had been almost ruined by your father and mother. Why, when we were first married, John, I fully expected to hear that your case was hopeless. What has cured you? I wish to be informed."

"My wife and her hygienic diet."

"Well?"

"Well, let us be logical. Our parents are to spend the holidays with us. It is their first visit—"

"And you are afraid it will be their last."

"And we both wish them to have just as good a time as possible. Now will their pleasure be best promoted by our program, or such an one as they have always been accustomed to? You are fond of St. Paul, Fanny, and he says, 'If meat maketh thy brother to offend, then eat no meat.' Now would he not also have said, 'If thy father and mother desire mince-pies and plum-puddings, why, give them mince-pies and plum-puddings?'"

"It would n't make any difference to me if he did," was the firm response. "St. Paul also tells us that each man must be a conscience unto himself. Your mother and my mother are old beyond their years, and are never free from some sort of physical misery. Your father has the gout, and is always complaining of something, and my father eats and drinks and goes to sleep, and wakes up and drinks more, and wonders what in the world it is that makes him so thirsty, and so heavy, so utterly and deplorably miserable. Now I propose to give my father one holiday dinner, at least, that will not act like an anæsthetic. My conscience, John Lancaster, is wide-awake on this matter of eating and drinking. I know that we have found a better way. Why not be brave and sensible, and try to prove to our parents that such is actually the case? I think they ought to be brought up over again, for my part."

"Fanny, I see my mother's nose now. It is so far up in the air that it will never come down again under our roof. In fact, I see her with her bonnet and

shawl thrown hastily on, hurrying for the train that will quickest convey her to the land of good cheer and plenty. She is your mother-in-law, Fan, but my mother; and while I love her very dearly, I am just as afraid of her as I was when she used to chase me round the chimney with a hair-brush."

"With a hair-brush? That was n't a very formidable weapon," said his wife.

"Nevertheless, the back was very hard, and the handle very "convaynient-like" for the purpose."

"You have got a wife to protect you now, my dear, so do n't be afraid. But, John," the speaker added, returning to the subject with determination, "we can have pumpkin pies. I can make a bottom crust that would n't hurt a baby. We can have blanc-mange, delicious puddings, cup custards, and lots of nice things. If you do n't go to apologizing and explaining, I think we can entertain these unhygienic parents of ours in such a royal manner that they will miss nothing except the bad effects of the usual holiday meals."

"Well, go it," said Mr. Lancaster, "and I'll promise not to run if I can help it."

"At least, wait till you see your mother going," said his wife with a merry laugh.

This matter, though so jokingly discussed, had not been a light one to these young housekeepers. Mr. Lancaster was very much in doubt as to the proper course to be pursued. He had strongly advocated, in the first place, a total change of program for this holiday occasion. It would be vastly easier for all concerned, and when the visit was over, they could return to the manner of living which they had found most healthful. But this compromise seemed neither honest nor expedient to the brave little woman, who had read and studied, seen and practically realized, the ill effects of the old *regime*, and who by her strong good sense and her patient ministrations, had saved the man she had married from death, or a fate worse than death. She was determined to nail her colors to the mast-head, and keep them there. They should not be lowered to accommodate the prejudices of any human being, nor would she ever allow herself to be ashamed of them. Her husband's mother, as may be inferred, was a woman of strong will and decided opinions. She was particularly hostile to what she called fanaticism, and her son could not bear to have his fan run any chances of being snubbed, or classed with lunatics or cranks. How many hundreds of times, this gentleman wondered, had he heard his mother declare that the old ways were good enough for her, and all this talk about hygienic reform was a cloak for stinginess or laziness?

"Stir up some mush, and melt some brown sugar," she was wont to say with that elevation of the tip of the nose which her son dreaded and anticipated in the near future, "and wet some graham meal in cold water, put the stuff in patty pans, bake to brick-bats, and call 'em scones. That is hygiene—that is."

That afternoon, when Mr. Lancaster returned from business, he was accompanied by an elder brother. It was the gentleman's first visit, and John, always nervous about his relations, took his wife one side, and interrogated her in regard to her preparations for dinner.

"We have tomato soup, roast chicken, boiled rice, baked potatoes, baked apples, creamed onions, tapioca pudding, apples, and pears," his wife replied, "and if that is n't enough for your brother or any-

body else's brother, I should like to know it," the lady added a trifle impatiently. "There is certainly enough of it, and there is as great a variety as we can afford."

"Well, it is scarcely what Charlie has been accustomed to," said Mr. Lancaster in a dubious tone. "You see he has lived most of the time at hotels since leaving home, and then there is the wine, Fan—"

"Which he will never find at our table," said the young housekeeper firmly.

"I suppose I ought n't to have asked him to dinner. You see I know my brother's tastes, Fanny, and he knows that I know them, and what business had I to lug him home with me unless I can properly entertain him?"

"So much for having been born and bred a gourmand," Mrs. Lancaster responded. "John, I'm ashamed of you."

"Well, I'm about half and half ashamed of myself," said her companion, trying to smile. "But perhaps, Fan," he added as he turned away, "if I survive this, I may be able to sneak through Christmas and New-Years."

"You *are* a coward, John Lancaster, and no mistake," his wife answered, "but that does not interfere with your using the English language with accuracy and effect. Still, I do wish you would try not to sneak."

Brother Charlie seemed very much at home at this cozy dinner table. He was appreciative enough to take in at once the extreme delicacy and good taste of his surroundings. Every article of food upon this bountiful board was perfectly cooked, and beautifully served. There was not a spot upon the shining damask, nor a speck of lint on glass or china. The guest spread his napkin, and then from force of habit made an unconscious movement of his hand toward the wine-glass which always stood beside his plate. His brother saw it, and grew red in the face immediately. A moment or two later he said quite naturally, considering his perturbation of spirit, "You will find a marked contrast in our bill of fare, Charlie, from any that you have ever known."

"Why, what's the matter with it?" the visitor inquired in unfeigned astonishment, his hostess was pleased to observe.

"Well, to begin with, we never have wine. I drank too much before I was married, and that with other things came pretty near wiping me out, or worse. So we decided that wine and all liquors should be entirely eliminated, and more than this, that we would only eat those things that we know to be beneficial to body and mind."

Charles Lancaster looked up in some astonishment. "Body and mind"? he repeated.

"Yes, what's a man's mind good for when his stomach is constantly crowded with highly seasoned, indigestible food that causes him to drink and drink,—drink himself stupid, and too often drink himself drunk? I believe that half the intemperance of the world can be traced to table gluttony. Why, it is only a little while ago that I had but one thought in life, and that was to get to sleep, and forget for a few brief hours that I had a stomach."

"That's the way I feel about half the time," said the visitor, his face one great interrogation point, Mrs. Lancaster afterward observed. "And I drink," he went on, "ice-water and plain soda and Vichy and beer and Rhine wine and all sorts of stuff, and

yet I can never rid myself of the intolerable thirst you speak of. Is it possible that this is caused by what I eat?"

"It was in my case," the host replied. "At first I would n't believe it, but Fanny asked me to experiment awhile—"

"In other words, to try my cure," Mrs. Lancaster interrupted smilingly.

"And I was cured, and I'm a very good card for the doctor," said her husband. "I am never inordinately thirsty now. I sleep like a baby. I do not even have bad dreams, and I'm happy and wide-awake, and have no more realization of a stomach than I have of the complications of the solar system."

"Does your physician receive other patients, John?" the elder Lancaster inquired quite humbly. "I've got to be in the city a month or more, and it would be a true deed of charity to take me in, and do for me."

"She's a merciless tyrant. I tell you that to begin with," said John.

"Will she be willing to tyrannize over me? that's the point," his brother replied.

"It is just the occupation my soul craves," Mrs. Lancaster laughingly responded, "and we might as well begin at once. Because we had deprived you of your wine, I was going to give you some coffee; but I cannot treat my patient as I would my guest, so no coffee to-night."

A few days after the above conversation, Charlie Lancaster added a postscript to a letter to his mother something like this:—

"John's wife must be an excellent cook; for everything that comes on to her table is delicious. Things do n't taste any better than the home grub used to,—that would be quite impossible,—but they feel better in a fellow's stomach, and that I am bound in honor to admit. John is entirely cured of his dyspepsia, and he never drinks a drop of anything stronger than a glass of milk. I don't believe there'll be any mince-pies or pastry or fruit-cake or anything of the kind here at holiday time; so if you are likely to hanker after the Egyptian flesh-pots, you had better stay where you are, or else bring them along. Don't think I am speaking one word for you and two for myself; for I would n't eat a piece of mince-pie for a hundred dollars. I tell you, John's wife has got brains."

"I believe you *could* lead a forlorn hope," Mrs. Lancaster told her husband after this first ordeal was over. "And how came I to ever call you a coward?"

"It was only a superficial kind of cowardice, Fanny, that assailed me with Charlie," her husband replied. "But just wait till mother comes, and then you'll see what manner of man you have married."

"I expect your mother will want to stay the rest of the winter, and have me doctor her," said the young wife demurely.

"My mother glories in her infirmities, and the worst of it is, Fanny, she believes them to be Divine dispensations. She seems to be entirely sustained by her pride in the strength of character that enables her to keep about when any other woman—according to her statement—would go to bed and stay there. You would n't have her lose her will-power for want of practice, would you? My mother has the reputation, too, of making the best mince-pies in the State; and her English plum-puddings that

are boiled a week, and then put to pickle in brandy that peaches have been preserved in, take the rag off of every other plum-pudding bush that ever grew."

"Well, I'm not going to be frightened, even by such accomplishments," said his wife. "But, John, dear, isn't it dreadful, isn't it pitiful, that lives which might have been so useful should be so wantonly ruined? Look at this one item in the plum-pudding business, the least of all, perhaps, but enough to tire one to death just to think of. The water in which these wonderful puddings are cooked must always be kept at boiling point. This means gallons and gallons and gallons of water, poured first into a tea-kettle and then into the pudding-pot. This process of drawing and filling and boiling cannot be lost sight of for a single moment. Now isn't that abject slavery, and isn't it worse than that, outrageous wickedness, to spend valuable time, and destroy one's nerves, in cooking stuff with which to poison one's friends?"

"I think I had feeble glimmerings in the olden time that such was the case," Mr. Lancaster replied, "and especially when I was called upon to draw the water from the well, and keep the tea-kettle filled. But there *was* a little comfort in the odor, Fanny. Reformed gormand that I am, I must admit that."

The dreaded moment arrived at last, and both pairs of parents appeared on the scene. John Lancaster looked at his wife with a curious smile as the baggage was brought in. Father and mother Leslie traveled with two trunks, ditto father and mother Lancaster.

"Looks as if the old folks were not on good terms," the gentleman remarked when he was alone for a moment with his wife. "But did you notice any unusual odor about either of those arks? No? Well, I did. They've brought us 'vittles,' Fan, the proper holiday 'vittles,' or my nose has lost its smellers."

These words proved to be prophetic. As soon as practicable, Mrs. Leslie took her daughter aside for a private interview.

"I've brought you some pies and things, Fanny," she said, "for fear, with your new notions, you might neglect to properly prepare for your father and mother Lancaster, and that would never do, you know."

"What in the world shall I ever do with all these things?" said the bewildered housekeeper, as her companion lifted the lid of her trunk.

"You can give 'em to the poor if you do n't want 'em yourself," the elder lady responded in a huff.

If Mrs. Lancaster had not been able to see the ludicrous side of this picture, her case would have been a hard one. To wound the feelings of this mother who had been to so much trouble and expense to keep peace in the family, was impossible. It was on the very end of her tongue to ask her mother what grudge she supposed she had against the poor that she should wish to make them more miserable than they already were?

"Why, mother," she said instead, "you have worked just as hard as though you had stayed at home and had a house full of company. I did hope that this visit would prove a real rest and help to you."

"Say, Fanny, look here, will you?" said Mr. Lancaster a few moments later, his bright face so full of fun that his wife knew there was another surprise

in store for her. "I want to know what to do with the provender in mother's second trunk. She's awfully afraid that you will be displeased, but her excuse for loading up so is, she couldn't bear to think that your father and mother should be disappointed in their mince-pies, plum-pudding, and cranberry tarts, and goodness knows what else. Fan, I shall have to eat some of that pudding if it kills me. Mother has n't had any servant for a month, and she has crooked her poor old elbow to that tea-kettle and pudding-pot, with so generous and heroic a motive that I do n't know but I ought to agree to eat all the stuff she has brought."

"John Lancaster," his wife remarked with shining eyes, and a compression of her pretty lips that meant business, "just leave this whole matter to me. We must not hurt our mothers' feelings if we can help it. But I believe I can so cater to their depraved appetites that they will not want or even think of the provender they have provided. And I am going to send both of these women home feeling better, and if I do not convert our respected papas before the week is over, then have I studied psychology in vain. And you shall not touch the plum-pudding either. Now don't hinder me with your but's and it's and doubts and fears," as her husband opened his mouth to speak. "All I ask of you is passive acquiescence."

Mrs. Lancaster was as good as her word. She not only entirely converted and radically helped her brother-in-law, but so wrought upon the parents of both sides that they were obliged to confess that there was something in these "new-fangled ideas" that was worth trying. Papa Leslie's spinal column seemed as self-sustaining after dinner as before, and father Lancaster neither dozed in his chair, nor said bad words about his gouty foot; while mother Lancaster was the greatest wonder of all; for every dish that particularly pleased and agreed with her, she made a note of, and was not the least ashamed to ask her daughter-in-law for any information that seemed necessary.

"Why, John, I think your mother is just lovely," said the young wife to her husband when the visit was over. "How could you ever have been afraid of her?"

"My mother has behaved like a lamb," said John. "Further than that, deponent saith not."

"Verily, a little leaven leaveneth the whole lump."

JOHN PLOUGHMAN'S TALK.

Most men are what their mothers made them. Their father is away from home all day, and has not half the influence over the children that the mother has. The cow has most to do with the calf. If a ragged colt grows into a good horse, we know who it is that combed him. A mother is therefore a very responsible woman, even though she may be the poorest in the land; for the bad or the good of her boys and girls very much depends upon her. As is the gardener, such is the garden; as is the wife, such is the family. Samuel's mother made him a little coat every year, but she had done a deal for him before that; Samuel would

not have been Samuel if Hannah had not been Hannah. *We shall never see a better set of men till the mothers are better.* We must have Sarahs and Rebekahs before we shall see Isaacs and Jacobs. Grace does not run in the blood, but we generally find that Timothies have mothers of a godly sort.

Little children give their mother the headache; but if she lets them have their own way, when they grow up to be great children they will give her the heartache. Foolish fondness spoils many, and *letting faults alone spoils more.* Gardens that are never weeded will grow very little worth gathering; all watering and no hoeing will make a bad crop. A child may have too much of its mother's love, and in the long run it may turn out that it had too little. Soft-hearted mothers have soft-headed children; they hurt them for life because they are afraid of hurting them when they are young. Coddle your children, and they will turn out noodles. You may sugar a child till everybody is sick of it. Boys' jackets need a little dusting every now and then, and girls' dresses are all the better for occasional trimming. Children without chastisement are fields without ploughing. The very best colts want breaking in. Not that we like severity; cruel mothers are not mothers, and those who are always flogging and fault-finding, ought to be flogged themselves. There is reason in all things, as the madman said when he cut off his nose.

A mother who trains her children, aright had need be wiser than Solomon for his son turned out a fool. Some children are perverse from their infancy; none are born perfect, but some have a double share of imperfections. Do what you will with such children, they don't improve. Such cases are meant to drive us to God, for he can turn blackamoors white, and cleanse out the leopard's spots. It is clear that whatever faults our children have, we are their parents, and we cannot find fault with the stock they came of. Wild geese do not lay tame eggs. That which is born of a hen will be sure to scratch in the dust. The child of a cat will hunt after mice. Every creature follows its kind. If we are black, we cannot blame our offspring if they are dark too. Let us do our best with them, and pray the mighty Lord to put his hand to the work. Children of prayer will grow up to be children of praise; mothers who have wept before God for their sons will

one day sing a new song over them. Some colts often break the halter, and yet become quiet in harness. God can make those new whom we cannot mend, therefore let mothers never despair of their children as long as they live. Are they away from you across the sea? Remember, the Lord is there as well as here. Prodigals may wander, but they are never out of sight of the great Father, even though they may be "a great way off."

Let mothers labor to make home the happiest place in the world. If they are always nagging and grumbling, they will loose their hold of their children, and the boys will be tempted to spend their evenings away from home. Home is the best place for boys and men, and a good mother is the soul of home. The smile of a mother's face has enticed many into the right path, and the fear of bringing a tear into her eye has called off many a man from evil ways. The boy may have a heart of iron, but his mother can hold him like a magnet. The Devil never reckons a man to be lost so long as he has a good mother alive. O woman, great is thy power! See to it that it be used for him who thought of his mother even in the agonies of death.—*Rev. C. H. Spurgeon.*

HOLIDAY HOSPITALITY.

THE beautiful new Temperance Calendar just issued by the Woman's Christian Temperance Union, has upon its first leaf for Jan. 1, 1886, the following most excellent sentiment from the pen of Mrs. Mary B. Willard, which we wish might be read by every woman in the land:—

"To dispense a large and bountiful hospitality with grace and dignity, may well be the pleasure of those whose ladyhood came to them by way of "loaf-giving." . . . But the true "loaf-giver" is one who admits no treacherous enemy to her friendly feast, nor hands a poisonous viand to her guests. Science, the unwearied traveler that nightly pitches her moving tent a day's march nearer truth, has joined with sad Experience to say that the wine-glass is a poisoned cup; that the baleful spirit that abides in it is no friend to friendship, and no inspiration to goodness. There are many weak ones who need your sympathy and help to-day. Stay the hand that in mistaken kindness would offer temptation in that graceful fashion most difficult to resist, and shield from your

happy memories of this day the possible offense or occasion of stumbling to one of Christ's little ones."

HOW TO BECOME GOOD-LOOKING.

OUR thoughts are very likely to leave their impress on our faces, and it is certain that they do immediately manifest themselves upon our countenances, making them cheerful or sad or otherwise, according to what is going on in our minds. We pay too little attention to these things, and because we do not recognize to what an extent facial expression indicates individual character, we indulge ourselves in many moods that would not be permitted were we aware of the fact that habitual states of mind fix permanently our features in a large degree. A cheerful, happy heart is sure to make a bright, sunny face. It may not be in a day, or a week, or a month, or a year; but the man or woman cannot be otherwise than good-looking who continually maintains a happy disposition in himself and a kindly spirit for others.

"We chisel our thoughts in the face,
Emotions we paint unawares,
With our minds and hearts ever trace
Our joys and our griefs and cares.
It is love, it is hate, we write,
Whatever we think or feel;
It is doubt, it is faith, or light,
Whatever is woe or weal.

"Whatever we choose we may paint,
The feelings refined or ill,
The thought of the hero or saint,
Whatever we love and will;
A sculptor of self we may be,
Chisel as Phidias wrought;
Carve in the face what all may see—
A soul by the masters taught."

—*Sel.*

Infalible Recipes.—For preserving the complexion, temperance; for whitening the hands, honesty; to remove stains, repentance; for improving the sight, observation; for improving the voice, civility; to keep away moths, good society; a beautiful ring, the home circle.

"I'd rather be mum,
And always dumb,
Than pray like some,
'Thy kingdom come,'—
Then vote for rum."

— "If the power to do hard work is not talent, it is the best possible substitute for it."

Popular Science.

A Paper Chimney.—A manufacturer of Breslau is stated to have built a chimney, over 50 feet in height, entirely of paper. The blocks used in its construction, instead of being of brick or stone, were made of compressed paper, jointed with silicious cement. The chimney is said to be very elastic, and also fire-proof. We may add that picture-frames are now made of paper on the Continent. Paper pulp, glue, linseed oil, and carbonate of lime, or whiting, are mixed together and heated into a thick cream, which on being allowed to cool, is run into molds, and hardened. The frames are then gilded or bronzed in the usual way.—*Scientific American.*

Outwitting a Fog.—A scientist, while out in a boat one night on a river in Florida, was caught in a fog so dense that he could not see twenty feet ahead. The boatmen stopped rowing, and said that they would have to wait for daylight, or until the fog cleared away, as they did not know in what direction to steer. The scientist showed them what science could do for a man in an emergency. He says:—

"I at once stood up in the boat, and hallooed. Soon the echo came back. Pointing in the direction from which the echo came, I said: 'There is the nearest land.' Rowing half a mile in the direction of the echo, we soon reached land, and coasted home. The boatmen expressed great surprise that they had been on the river all their lives, and had never thought of so simple and easy a plan to find the shore when lost in a fog. The knowledge of so simple a fact has saved me many a dismal hour, both by night and day, on the river. Fishermen to whom I have communicated this have told me that such a knowledge would often have saved them from whole nights of useless toil, and would have saved them hundreds of dollars in their business. Steamboat pilots may also be benefited. I have seen them run ashore with the echo striking them in their teeth. During a fog the atmosphere is so saturated with moisture that it is a much better conductor of sound than when it is dry. Two results follow: First, sound travels faster, and hence the echo returns more speedily; secondly, the sound is heard more distinctly. Remembering these two facts, a person with a little practice can soon determine the approximate distance of the nearest land or woods."

The Antiquity of Egypt.—The Rev. Harry Jones contributes an interesting article on the antiquity of Egypt to *Good Words*. He says:—

"We are fairly aghast at the attempt to realize the antiquity of Egypt. It was civilized, its chronicles were kept, its kings carried on wars with armies of imported negroes, its priests conducted an elaborate ritual in gorgeous tem-

ples, its rich men employed skilled painters and engravers to decorate the walls of their tombs, its courtiers—in notes which might have been penned yesterday—recorded their gratification at proofs of royal confidence, its life was full of minutiae and etiquette of civilization in government, religion, science, and art, ages before what many have considered to be the dawn of history, before a word had ever been written of the oldest books known to European scholars."

How Insects Breathe.—If we take any moderately large insect, say a wasp or a hornet, we can see, even with the naked eye, that a series of small, spot-like marks runs along the side of the body. These apparent spots, which are generally eighteen or twenty in number, are, in fact, the apertures through which air is admitted into the system, and are generally formed in such a manner that no extraneous matter can by any possibility find entrance. Sometimes they are furnished with a pair of horny lips, which can be opened and closed at the will of the insect; in other cases they are densely fringed with stiff, interlacing bristles, forming a filter, which allows air, and air alone, to pass. But the apparatus, of whatever character it may be, is always so wonderfully perfect in its action, that it has been found impossible to inject the body of a dead insect with even so subtle a medium as spirits of wine, although the subject was first immersed in the fluid, and then placed beneath the receiver of an air-pump. The apertures in question, which are technically known as *spiracles*, communicate with two large breathing-tubes, or *tracheæ*, which extend through the entire length of the body. From these main tubes are given off innumerable branches, which run in all directions, and continually divide and subdivide, until a wonderfully intricate net-work is formed, pervading every part of the structure, and penetrating even to the *antennæ*.—*Ex.*

Hypnoscope.—A Russian has invented what he calls a hypnoscope, which consists of a magnet rolled up like a ring. This is slipped over the finger of the person tested, and if it produces a tingling or itching sensation, or coldness or dryness in the finger, the individual is capable of being mesmerized, or hypnotized. Experience has shown that magnets have no effect whatever upon the human body, and it is therefore apparent that the effects of the hypnoscope are due to the imagination.

—"Lenses of rock crystal taken from the ruins of Nineveh," said a member at the meeting of the microscopists in Cleveland, the other day, "suggest that microscopes may have been used in those days." No man knows, indeed, who did invent the magnifying glass.

—Scientists have discovered that the cucumber always has a temperature lower than the atmosphere in which it is placed. This makes the maxim, "Cool as a cucumber," scientifically correct.



GOOD HEALTH.

BATTLE CREEK, MICH., DECEMBER, 1885.

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

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CLIMATE.

THE first question of interest in the consideration of this subject is, What is climate?

A great number of meteorological and other physical conditions enter into the composition of what is ordinarily known as *climate*; but the conditions in which the invalid is particularly interested, may be briefly stated as follows:—

1. Temperature; 2. Humidity; 3. Altitude; 4. Atmospheric purity.

1. As regards temperature, a climate may be either hot or cold, temperate, uniform, or changeable. Let us notice the effects upon health of these different conditions of temperature.

Man is undoubtedly by nature best adapted to life in a tropical or semi-tropical country. His nearest relatives in the animal kingdom, the various varieties of the monkey tribe, flourish only in those portions of the globe which lie within the tropics. His physical characteristics and his natural affinities as regards diet, which, according to the best naturalists, place him in the class of fruit-eating, or frugivorous animals, clearly indicate his natural adaptitude to a warm climate.

Nevertheless, man's constitution has obviously been so modified by the artificial conditions of civilization, to which his intelligence has enabled him to adapt himself, that he is not only capable of subsisting in a cold climate, but appears to develop greater physical vigor and a higher grade of mental capacity.

The natural effect of continuous life in a warm climate, seems to be to produce a sluggish and indolent condition of both mind and body. This fact, perhaps, accounts more fully than any other for the mental and physical apathy which seems to prevail among the natives of tropical and semi-tropical countries. The predominating nations of the world are those who live in a cool or temperate climate.

The effect of cold air upon the system is tonic

and invigorating. Cold air contains a larger proportion of oxygen than warm air. It is for this reason that the fire on the hearth glows brighter in winter than in summer. In climates which are almost continuously cold, human beings, as well as most of the members of the animal kingdom, and all kinds of vegetation, exhibit the dwarfing influence of excessive and continued cold. The vital powers are exhausted in the effort to maintain normal heat under the adverse conditions to which the system is subjected.

The alternation of the seasons in the temperate zone seems to be in the highest degree conducive to health. The warm season, by inducing perspiration, encourages the elimination of those products of waste which may have accumulated during the cold season to such a degree as to somewhat impair the vital activities of the body. The relaxing effect of continuous warmth which begins to be felt by the system in the latter part of the summer season, is antagonized by the cool air of fall and the cold air of winter, which tones up the system, causing it to put on the "winter constitution," which implies a higher degree of activity in every function, and a more intense life for the whole body. It is this winter toning up which secures for the Canadian and other dwellers in the north temperate zone, the red lips and ruddy cheeks which betoken a high state of physical vigor. In the extreme South, one sees sallow, yellow skins, scrawny frames, and a general air of "biliousness" on every hand. A person with rosy cheeks and lips is almost as rarely seen among the natives of the far South as are Albinos among the swarthy races of Central Africa.

2. Another most important element of climate is humidity, or moisture of the air. A dry atmosphere rapidly carries off the insensible perspiration which appears upon the skin, and also absorbs from the mucous membrane of the lungs a large amount of moisture. A moist climate, on the other hand, takes up the secre-

tion of the skin less rapidly. In an atmosphere saturated with moisture, the action of both skin and lungs is greatly impeded, because the transuded moisture, with its contained impurities, is not removed so rapidly as it should be. This is one reason why one feels depressed and languid on a very hot day. Extreme dryness is equally unfavorable to proper action of the lungs; but this is a condition rarely met with in nature, except in the vicinity of great deserts. That condition of air in which it contains about two-thirds as much moisture as it is capable of taking up, is generally conceded to be the most favorable to health.

3. The air of high altitudes is much rarefied, and consequently contains a diminished quantity of oxygen, although the proportion of oxygen to the other elements remains the same. This requires a more active use of the lungs, on which account high altitudes have sometimes been found beneficial to persons suffering with consumption in its early stages; though for a case in which the disease has made considerable advancement, a high altitude is positively dangerous.

4. Malaria, a word which means literally *bad air*, is undoubtedly something which is more or less closely connected with climate, although its cause has not yet been thoroughly made out. The latest, and to our mind the most plausible, theory concerning this enemy of human life and health, is that its effects are not produced by germs or effluvia of any sort, but that malarial manifestations are wholly due to disturbances in the system, arising from sudden changes of the temperature. This theory seems at least to agree with the observation that malaria must prevail at those seasons of the year and in those localities where the changes of temperature and atmospheric condition are most sensibly felt.

It is unquestionably true that the system may accommodate itself to almost any climate, and that excellent health may be enjoyed almost anywhere on the earth's surface between the equator and the poles. Nevertheless, it is equally true that certain localities are more conducive to uniform health and prolonged life than others. The system seems to be able to adapt itself to extreme heat or extreme cold with considerable readiness, and seems to thrive best under those alternations of heat and cold afforded by the changing seasons of the temperate zone. A condition of constant meteorological change, with alternations of heat and cold, dryness and moisture occurring so rapidly that the system has not time to adapt itself to one

condition before another has been imposed upon it, is in the highest degree unfavorable to health, and productive of disease.

The climate which is the most healthful one, is that which is most uniform, whether hot, cold, or temperate. It may be very dry or humid, provided the condition is measurably constant; the system adapts itself to the condition which it finds, and the body thrives. But those localities in which great changes in temperature or moisture, or both, occur with great rapidity, are exceedingly trying to the system, and give rise to a variety of disorders which become almost universal among those who dwell in a climate of this character. At this season of the year, there is an annual exodus of pilgrims, who seek to find in the sunny South, protection from the frosts and chilly blasts of our Northern winter.

While such protection is undoubtedly wise and necessary for a few, we have become convinced from observation and study of this matter, that thousands derive more harm than good from their annual pilgrimage, as the system loses the immense advantage which it would gain from the cold air, and the invigoration to be derived from the breathing of an atmosphere rich in vitalizing oxygen. We are satisfied that thousands would be vastly better off to remain at home, provided they would avail themselves of the opportunity for toning up which nature so liberally affords us during the cold season. Those who house themselves up in furnace-heated and unventilated rooms, would certainly be better off even in the warm, humid climate of Florida, even though they should miss the enlivening influence of a winter atmosphere. But such artificial conditions are by no means essential to health during a Northern winter. Certainly, all but the very feeblest persons may, by beginning early in the season, with the first approach of cold weather, so inure themselves to contact with cold air, as to be in no way injured thereby, but, as already claimed, be greatly benefited.

But aside from sustaining the vital loss referred to, dwellers in the South during winter months are subject, much of the time, to even greater alternations of temperature, than those who reside at the North during the same season.

The only way in which a perfectly uniform temperature can be obtained during the cold season of the year, is by establishing an artificial climate. Upon this subject, we shall speak more at length next month.

WHAT TO WEAR FOR HEALTH.

THE several uses of clothing may be said to be, 1. Protection from extremes of temperature, heat or cold; 2. Protection from dampness; 3. Protection of the body from injury through contact with objects; 4. A covering for the body.

In order that these objects shall be met, the clothing should be made of proper material, and must be properly worn. As regards the material for clothing, it is essential, *a.* That it shall be a poor conductor of heat, in order that the heat of the body may not be wasted too rapidly in cold weather, and also that we may be protected from the heat of the sun and the highly heated air in summer; *b.* That it shall not transmit moisture too rapidly, as by this means the surface may be too rapidly cooled by evaporation of the perspiration; *c.* That it shall be light, that it may not burden the body with unnecessary weight; *d.* That it shall be porous, or permeable to air, so that the insensible perspiration may escape from the body, and that the process of skin respiration may be properly performed.

Experiment.—A good conductor is a substance which heats readily when in contact with a heated object, or exposed to the fire or sun's rays. All the metals are good conductors of heat; while wood, hair, and most vegetable and animal substances are comparatively poor conductors. It is for this reason that pieces of wood are often attached to stove handles and flat-irons. Take a short piece of iron rod, and a piece of wood whittled to the same size. Place one end of each against a hot stove cover. In a few minutes the iron will become uncomfortably hot, while the wood may still be held in the fingers, although the heated end may be so hot as to burn. Substances which are poor conductors are termed non-conductors.

The materials usually worn for clothing are linen, cotton, silk, and woolen, to which must be added leather for shoes, and rubber for shoes and over-garments.

Linen has the advantage of being

smooth, soft, and light, but is an inferior material for clothing to be worn next the body, 1. Because it is a good conductor of heat, and 2. Because it readily transmits moisture, and thus promotes evaporation on the surface, and so chills the body. A linen garment feels wet when the least moist or damp.

Cotton is less pliable and soft than linen, but is not so good a conductor of heat, and transmits moisture less readily. It is a better material for clothing to be worn next the skin in warm weather, but is not wholly unobjectionable.

Silk stands next in order of superiority as a material for clothing, being a poorer conductor of heat than cotton, and not so good an absorbent of moisture.

Wool is the best of all materials as a non-conductor, and has the additional merit of absorbing and transmitting moisture slowly, so that a person who perspires freely is less likely to chill than when wearing a fabric of any other material. Wool is also capable of absorbing a considerable amount of moisture without seeming to be wet. The fact that it absorbs water, or "wets," slowly and dries slowly, makes it a most excellent clothing material. However, it is sometimes found to be too irritating to the skin to be worn with comfort. In such cases, a thin cotton or silk garment may be worn under the woolen. This will combine the advantages of the two materials.

Experiment.—Cut two blocks of ice to the same form and weight. Cover one with flannel, the other with cotton cloth. Expose both to the sun, and after an hour or two, weigh each piece of ice, and see which has lost the most. It will be found that the woolen cloth is much the best protector for the ice, and for the same reason it affords the best protection for the body.

Another Experiment.—Immerse in water a piece of flannel and a piece of cotton cloth, of equal size. Observe the much greater length of time required for the flannel to become wet. Every one is fa-

miliar with the fact that flannel, after being wet, dries very slowly.

Rubber and leather should be worn only as a covering for the feet, or for temporary use when exposed to rain. Rubbers and mackintosh cloaks or coats should be laid aside immediately on coming in out of the rain.

Experiment.—Cover the arm next the skin with a piece of rubber cloth, oiled silk, or oiled muslin. After twenty or thirty minutes, remove the covering. Notice that the skin is moist. The moisture is due to the accumulation of the insensible perspiration which ought to have escaped into the air. This shows the importance of wearing porous clothing. Undoubtedly, many people take cold from the evaporation of moisture which accumulates in the clothing while wearing a rubber cloak or mackintosh, after the rubber garment is removed.

TO BE CONTINUED.

THE GRAPE CURE IN SWITZERLAND.

IN many parts of Switzerland, large numbers of invalids frequent the vineyards at the proper season to employ the grape cure for their various ailments. A New York physician writes to a journal published in that city the following account of this novel method of cure:—

“In Switzerland we inquired in regard to the ‘grape cure,’ of which the reader has doubtless heard. We were told that large numbers of people from various parts of the world have visited that country for the sake of being cured of various diseases by the use of grapes. We found that patients ate the grapes, commencing with one pound a day, gradually increasing the quantity until they ate three or four pounds. Some, instead of eating the grapes, with a small hand-press squeezed the juice from them into a cup or glass, and drank the juice; and we learned that patients were often materially benefited, and even cured, by the treatment. Grapes do not cure diseases as poisonous remedies cure, but by supplying the or-

derly wants of the body for such as are suffering from the use of fermented and intoxicating drinks and other improper articles of diet, which have not duly supplied them with all the nourishment needed by the different structures of the body. It is safe to say that the juice of no other fruit or vegetable so strikingly resembles blood in its composition, as the unfermented juice of grapes; and it is equally safe to say that the juice of no other fruit used for human food less resembles blood in its chemical composition than does well-fermented grape juice, or wine, all of which is very suggestive.

“We learned, while in Switzerland, at Vevay, from parties interested, that there was a company which was evaporating, by a patented process, the fresh grape juice, or new wine, from six parts to one, in Hungary, and shipping it in large quantities to London; and as we were intending to visit that country, the owners of the patent made arrangements for the superintendent of the company to meet us at Budapest, and to bring us samples of the concentrated wine. The gentleman brought three quart bottles full of it. We found it as thick as honey, slightly acid, and when diluted with water, a delightful and nourishing drink, which we enjoyed much. We also ate it on our bread and meat, and bread and butter, and found it an excellent article for this purpose. It was so thick that it would scarcely run from the bottle.

This carefully concentrated grape juice possessed the flavor of the grapes, and, in the judgment of the writer, would make an excellent substitute for the fresh grapes for the cure of diseases in cases where they are likely to prove beneficial; and it would have the advantage, for those not able to travel to distant lands, that it could be used at home, and its use extended over a longer period of time; and if taken in much smaller quantities during the twenty-four hours, it would be much more likely to prove permanently beneficial. It does not readily ferment; it is easily preserved and trans-

ported, can be readily canned, and should be much cheaper than the same amount of nourishment in the form of unreduced grape juice or wine; and it would seem that wine or grape juice, thus preserved, should become a valuable article of commerce, and a source of health, joy, and delight to the nations of the earth, instead of, as in the case of fermented wine, a source of drunkenness, disease, insanity, poverty, crime, and death. The grapes of Switzerland, and especially of Hungary, are not as acid as those grown farther north, nor as sweet as those grown farther south, and would seem to be admirably adapted for the purpose named above, or for the 'grape-cure.'"

OVERCOAT COLDS.

THE London *Lancet* calls attention to the fact that overcoats are not an unmixed good, being often a cause of cold at those seasons of the year when they are worn. We heartily concur in the following remarks upon this subject, and consider them very timely:—

"This is the season most appropriate for a little serious reflection on the subject of overcoats. Nothing seems more simple than to adapt clothing to the weather by the addition of an overcoat, light or heavy, as the occasion requires. It must not, however, be forgotten that just in proportion as the garment superimposed upon the ordinary clothes is effective in producing a sense of warmth, it acts by arresting the evaporation of warm vapor from the body. This warm vapor continues to rise through the ordinary clothing, but it is prevented from escaping, and the clothes are saturated with it. The general effect is well enough while the overcoat is kept on; but the moment it is removed, evaporation recommences, and the body is placed in a "cooler," constructed on the principle adopted when a damp cloth is wrapped round a butter dish, the vapor passing off abstracting the heat, and leaving the contents of the cooler refrigerated.

"The point to make clear is that the overcoat, let it be fashioned and ventilated as it may, does not prevent the underclothing from being saturated with moisture, but actually tends to make the moisture accumulate therein. This is proved by the sense of genial warmth felt while the overcoat is worn, and the evidences of perspiration, easily perceived under the arms and at the sides of the chest particularly, immediately after the overcoat has been removed. Moreover, we take off the coat when we enter a warm house, and precisely at the moment when muscular activity is suspended. A very little consideration will suffice to convince the common-sense thinker that nothing can well be worse managed than this process, both as regards its nature and the time and conditions of its operation. It is opposed to all the canons of health to allow the clothing to become saturated with perspiration, and then to take off the external covering, and suffer rapid cooling by evaporation; while, if it were designed to do this at the worst possible time, probably none worse could be found than when muscular exercise has been discontinued.

"The suggestion we have to offer is, that it would be far better policy to wear only one coat at a time, and to make whatever change may be necessary by removing a thin coat, and replacing it by a thicker one when going out-of-doors, and the reverse when coming in. If, instead of wearing overcoats, people would wear coats of different thicknesses, according to the weather and conditions generally, they would avoid the danger of cooling by evaporation; the garments saturated with moisture would be removed, and the perspiration would dry off the body instead of on it. We believe no inconsiderable proportion of the "colds," attacks of lumbago, and even more formidable results of what are popularly called "chills," may be traced to the practice of wearing overcoats which arrest the ordinary process of evaporation, cause the clothing within to be saturated with accumulated perspiration, and are then removed, when

rapid cooling takes place. The avoidance of this peril is to be attained by such change of coats as the conditions require."

Dr. Hogg's Plan of Ventilation.—The London *Lancet* describes an ingenious method for ventilating a dwelling-house devised by Dr. Hogg, as follows:—

"According to this, none of the windows are to be opened; and there is but one fire-place,—that in the kitchen. Underneath the hall a large passage is used as the intake of fresh air, where it can be cooled in summer by ice or water spray; while in winter it is warmed by hot steam pipes, economically heated by a small coke stove. The air then passes up into the hall, from which it is separated only by an iron trellis work, and travels into every room of the house by apertures made in the skirtings and cornices. In the ceiling of each room there are one or two openings and exhaust shafts leading to the foul-air chamber in the roof of the house, the exhaust suction being produced by a large shaft, which runs from the foul-air chamber down to the back of the kitchen fire, where the heat of the boiler and the fire suffice to attract the air. From the back of the kitchen fire, in the basement of the house, the air again travels up, a square brick shaft or chimney conveying it through the roof and into the open air. In the center of this shaft is a circular metallic flue, which carries away the smoke of the kitchen fire; and this flue, always more or less heated, stimulates the current of air."

Results of Hygiene in London.—According to a recent article in the *Medical and Surgical Reporter*, the latest statistics of death for London was the remarkably low rate of thirteen per thousand, which has hardly been equaled in any large city. This result is claimed to be due to the strict attention given to hygiene in this great city. There is certainly no reason why nearly every other large city in the world should not be able to make an equally fa-

vorable showing. Such facts as these speak more loudly in favor of sanitary laws and regulations than any amount of theoretical argument.

Cholera Vaccination.—The inoculations of well persons with cholera germs, which has been suggested by Dr. Ferran, and has been practiced in Spain to some extent, seems to meet with but little favor. According to a recent report, numerous cases of gangrene have resulted from the operation, requiring amputation of the arm, the part inoculated. The best mode of avoiding cholera is to keep the premises free from filth, and look carefully after the water-supply.

Ancient Sanitary Laws.—That sanitary regulations are not wholly the invention of the present generation, is evidenced by the historical fact, which perhaps is not generally known to most people, that more than two centuries ago the father of Shakespeare was fined by the authorities of Stratford-on-Avon for depositing garbage in the street in front of his cottage.

Bad Effects of Roller Skating.—A physician writes to the *Boston Medical and Surgical Journal*, giving an account in which a number of cases of serious local disease in young girls, had come under his observation, which were undoubtedly due to excessive exercise in roller skating.

Drinking Eau-de-Cologne.—According to a contemporary, *eau-de-Cologne* is being used very extensively as a beverage in those districts of Germany in which prohibition of alcoholic liquors is enforced. One little town imports two thousand bottles annually, which contain a large proportion of alcohol.

—One hundred thousand persons have died of cholera in Southern Europe during the past summer. It is reported that the cholera has reached the vicinity of Paris.



DOMESTIC MEDICINE.



CLIMATE AND HEALTH.

DR. G. V. POORE, an eminent English physician, in a recent Cantor lecture made several excellent observations upon the relation of climate and weather to health, some of which are briefly summarized by the *London Medical Times* as follows:—

“Dr. Poore observed that as the composition of the air was practically uniform throughout the world, its chemical composition could have very little to do with health. One of the effects of rain was to raise the temperature of a place, and it had been calculated that the rise in temperature due to the condensation of rain on the west coast of Ireland was equal to half the amount of heat received from the sun. Rain was also a great purifier of the air. Moisture was not a direct cause of disease, but indirectly it was harmful, inasmuch as it favored putrefaction, the great enemy of health all over the globe. Great heat, joined with great moisture, was undoubtedly injurious to health, by accelerating putrefaction. It was difficult to say that heat, considered quite alone, was a cause of disease, but it was difficult to separate it from other things, especially its relation to putrefaction. Heat-apoplexy might be produced in the shade as well as in the sun, and it was noteworthy that it could also be brought about by overcrowding, and by errors of diet and dress. The extremes of cold and darkness did not necessarily of themselves endanger life,—a fact which had been conclusively proved by the experiences of the crew of the *Eira* while in the Arctic regions.”

Dirt in the Eye.—Dirt on the eye would be a more proper expression, as foreign bodies lodged upon the surface of the eyeball, or beneath the lids, are not really in the eye, but upon it. Although they sometimes cause serious mischief, as well as much pain and inconvenience, they are by no means so dangerous as foreign bodies lodged in the eye or within the eyeball. Particles of sand, dust, or other substances in the eye, may be very easily removed by the corner of a handkerchief, or by drawing the upper lid away from the eye, and gently stroking over it in a downward direction. Vio-

lent blowing of the nose, with the eyes tightly shut, will often suffice to remove particles which are not imbedded in the mucous membrane. Little bodies, known as eye-stones, obtained from certain mollusks, have no specific virtue, although they are often used for the purpose of removing dirt from the eye. Flaxseed is often employed for the same purpose. The way in which these objects operate is by producing a profuse flow of tears, which carries away the obstruction. They are not to be recommended. When particles of iron, cinders, or other foreign substances are imbedded in the mucous membrane, some blunt instrument may generally suffice to effect a removal, unless the cornea is the part involved. When the particle is imbedded in the cornea, care should be used in attempting to dislodge it, that it is not pushed farther into the tissues. Such particles may generally be dislodged in the following manner: Let the patient hold the eye perfectly still, while the operator passes back and forth before the cornea, and over the object, a knife with a sharp, smooth blade, gradually approaching nearer to the surface, until finally the foreign body is removed. When this is skillfully done, the eye may not be touched at all, as the foreign body generally protrudes a little beyond the membrane. If the particle is imbedded in the eye so deeply that it cannot be removed by any of the means described, a surgeon should be at once consulted, as much injury may result if the obstruction is not speedily removed.

Care of Babies.—An American mother in Japan writes to *Babyhood* as follows respecting her success in treating her baby after a sensible fashion:—

“From the first he was fed at regular intervals. For three months he spent most of his time in a *kore*, which is Japanese for a certain kind of long basket; after that, the bed was his play-house. It would have been no hardship to have rocked my boy to sleep in my arms, or to have held him long hours on my lap. The touch of the soft little body is a delight to me. But certain things my common sense taught me were good for my boy, and certain things were not; and it was his well-being, not my pleasure,

that must be considered. Many times I have longed to take him in my arms, and rock him to sleep; and now that he is older, and asks it as a favor, not demanding it as a right, we have many happy 'by-bys' together.

"He did not always go quietly into his *lure*, but rebelled with all his little might. I do not think I would have found my own strength sufficient for thus disciplining my baby, but his papa helped me. In theory we agreed, but in practice I wavered. When baby was particularly rebellious, I have gone to his papa, begging him to tell me I ought to take the baby up, or with tears in my eyes have gone to be comforted. If I did yield and take the little fellow in my arms, he was at once all smiles and dimples. Surely, a baby wanting anything but his own way would not be so easily comforted! But it did not require many lessons to teach the boy that he must lie where he was, and go to sleep. A few lessons, harder for papa and mamma than for baby, sufficed. I have never rocked him to sleep, except a few times when he seemed to be feeling slightly ill. After he was six months old, he never nursed at night between ten p. m. and five or six a. m. I had no trouble in weaning him, which I did at fifteen months. I had been giving him two meals a day of barley or other food for several months.

"If the mother who nurses her baby every time he cries, day or night, and rocks him to sleep in her arms or cradle, satisfying him only by constant attention, will try the plan of letting baby alone,—'wholesome neglect,'—she will never return to her former methods. Baby is happier and far better off, and his mother finds him, instead of a little tyrant and herself his tired slave, a happy, dimpling darling, a constant source of pleasure."

To Relieve Dryness of Tongue.—Many persons suffer greatly from dryness of the mouth and tongue. This is also a serious inconvenience to patients suffering with typhoid fever. It may be relieved by painting the tongue and throat frequently with glycerine.

Fracture of the Nose.—Fracture of the bones of the nose is readily recognized by the characteristic deformity. Great swelling usually occurs in a very short time, sometimes making it difficult to tell whether there is fracture or not. Hot fomentations should be applied at once, as by this means pain and swelling, and subsequent inflammation may be very much diminished. A pencil should be passed up into the nose, and by its aid, together with manipu-

lation by the fingers, the depressed bone should be lifted into position. The bones may be held in place by means of a little wooden plug smeared with tallow, or plugs of cotton saturated with sweet-oil.

For Hemorrhoids, or Piles.—The bowels may be kept regular by the use of the following prescription, if care respecting the diet and the employment of some simple measures to keep the bowels loose are not effective:—

℞ Fl. Extract Cascara Segrada, fl. dr. 4.
Simple Syrup, fl. oz. 3. M.

Dose: A teaspoonful after each meal. The dose may be doubled without injury in obstinate cases; but the quantity taken should be gradually diminished until it can be discontinued without injury. When there is much tenderness and pain at stool, use the following by enema before going to stool, retaining it as long as possible, at least ten or fifteen minutes:—

℞ Flaxseed (unground), oz. 1.
Hot Water, pts. 2. M.

Allow to stand two hours before using. A small quantity of this infusion, half a pint, may be taken at night, and retained in cases of the sort mentioned.

The extract of hamamelis is an excellent remedy for use in these cases, and often affords great relief. It may be used in any of the following ways:—

℞ Fl. Extract Hamamelis, fl. oz. 2.
Glycerine, fl. oz. 4.
Aque, fl. oz. 10. M.

Bathe the parts twice a day.

℞ Fl. Extract Hamamelis, fl. oz. 4.
Vaseline, oz. 3. M.

Rub well together. Apply this ointment to the parts, if sore and protruding, twice a day.

℞ Fl. Extract Hamamelis, dr. 2.
Cacao Butter, dr. 6. M.

Rub well together, and make into suppositories, one to be used after the bowels move in the morning, and one at night.

℞ Ac. Tannic, gr. 20.
Cacao Butter, sufficient quantity. M.

Make into ten suppositories. Use same as preceding.

℞ Ac. Tannic, gr. 30.
Iodoform, dr. 1. M.
Cacao Butter, sufficient quantity.

Make into sixteen suppositories, and use same as preceding.

Convulsions.—If coming on soon after eating, give an emetic consisting of a teaspoonful of powdered alum or ground mustard dissolved

in three or four tablespoonfuls of warm water. If the extremities are cold, warm them. If the whole body is cold, give a hot bath. If the head is hot, apply ice. If there is violent jerking and clinching of the teeth, endangering the tongue, place between the teeth a cork or a piece of wood, or the handle of a spoon wound with cloth. If the patient does not recover quickly, send for a physician.

Another Cure for Corns.—Paint the corn every two or three days with a saturated solution of iodine in alcohol.

Question Box.

Intestinal Dyspepsia.—T. H. F., of Vt., complains that for a year he has been suffering with constant pain across the bowels, sometimes very sharp; frequent sickness at the stomach, and occasionally passage of undigested food. Has no ambition to work. He wishes a prescription for home treatment.

Ans.—Would advise the individual to restrict his diet closely to a few simple articles of food, taking care to eat a sufficient quantity, however. Milk taken to the extent of four to six pints, with lime-water added, in proportion of four parts to six, constitutes a very good diet in these cases. Pain in the bowels may be relieved by occasional hot fomentations. Hot water should be taken in liberal quantities whenever nausea is present.

Nasal Polypi—Oatmeal and Torpid Liver.—C. C. S. C., of Wis., is suffering with nasal polypi, and has been advised that they should not be meddled with until they have "matured," and that they should then be "twisted out by the roots." He has also been advised to discontinue the use of oatmeal for breakfast, on the ground that it has produced a "very bad liver." He asks our opinion concerning the advice given.

Ans.—Nasal polypi are always the result of nasal catarrh. They should be treated as soon as discovered, as they are a source of irritation and aggravation of the catarrhal difficulty. "Twisting out by the roots" is a method which should never be employed when a better one can be used. The proper method is to remove the polypi by means of a polypus snare, afterward treating the base of the points from which the growth has developed, with a galvanocautery, or other equally efficient means for destroying whatever morbid tissue may remain. After the polypi have been removed, the catarrh should be cured by the employment of the proper means, otherwise the polypi will be likely to re-appear.

We have never found any reason for considering oatmeal productive of bad livers, but have known a great many cases in which livers have been improved by the adoption of oatmeal as a regular article of diet.

Winter Food.—T. H. B., of Wis., writes: In the October number you condemn the use of "buckwheat pancakes," which I enjoy so much, but if injurious, shall abandon. Will you please state in your next number what we should eat during the winter months?

Ans.—The general use of buckwheat pancakes as a breakfast dish in winter, is undoubtedly a prominent cause of spring biliousness and various disorders of the digestion peculiar to winter and spring time. Pancakes possess no special virtue as a diet for winter. Cornmeal, and in fact all the grains, owing to the large amount of oil which they contain, are much superior. They are also rich in albuminous elements, which renders them exceedingly valuable for muscle and brain workers.

Ozone.—Since ozone can be manufactured by chemical means, why is it not practicable to produce it in the air of a sick-room, and thus render it useful as a medicinal agent?

Ans.—Various attempts have been made to utilize ozone in this manner, but with very indifferent success. When produced in any considerable quantity, it is found to be exceedingly irritating to the respiratory organs, so that it can be tolerated only in a very limited amount.

Reliable means for producing it are very costly, and not suited to domestic use. It is to be hoped, however, that the new discoveries constantly being made in chemical science may develop some means by which this most powerful of disinfectants may be produced abundantly and cheaply, so that it may be utilized for air disinfection, for which purpose it can certainly be used to very great advantage.

Sleep.—A querist asks: Why is it, if true, that one hour's sleep before midnight is as good or refreshing as two hours after?

Ans.—The statement referred to in the above question has been made, from what authority we know not. It seems to us that it cannot be accepted as an absolute truth. The statement probably grew out of the fact that in the first hours of the night's rest, sleep is much more profound than during the latter part. This would be just as true, however, if the individual retired after midnight, as before, being due to the fact that as the body becomes recuperated by rest, sleep grows less profound, until at last, when completely rested, the individual becomes wide-awake. It is unquestionably true, however, that a large proportion of the hours devoted to sleep should be secured before midnight, as this is more in accordance with the order of nature, than morning napping.



SCIENCE IN THE HOUSEHOLD.



CONDUCTED BY MRS. E. E. KELLOGG.

VEGETABLES.

How to Choose Vegetables.—All roots and tubers should be plump, free from decay, bruises, and disease, and with fresh, unshriveled skins. They are good from the time of maturing until they begin to germinate. Sprouted vegetables are unfit for food. Potato sprouts contain a poison allied to belladonna, which may produce serious results. All vegetables that have begun to decay are unfit for food.

Green vegetables, to be wholesome, should be newly gathered, fresh, crisp, and juicy; those which have lain for any time in the market are very questionable food. In Paris, there is a law by which no market-man is allowed to offer for sale any green vegetable that has been in the city more than one day. Positive evidence has shown that stale vegetables have sometimes been the cause of severe epidemics.

How to Keep Vegetables.—If necessary to keep green vegetables, do not place them in water for this purpose, as that will dissolve and destroy some of their juices; but lay them in a cool, dark place, on a stone floor is best, and do not remove their outer leaves until needed for cooking. They should, however, be cooked the day they are gathered, if possible.

The best way of freshening them when withered, is to cut off a portion of the stem, and set the cut part only in the water. The vegetable will then absorb a sufficient quantity to make up for what has been lost by evaporation. Peas and beans should not be shelled until wanted. If, however, they are not used as soon as shelled, cover them with the pods, and put in a cool place.

Winter vegetables can be best kept in a wholesome condition by storing in a cool, dry place where the temperature does not vary and where neither warmth, moisture, nor light are present to induce decay or germination. They should be well sorted, all bruised or decayed ones rejected, and put into clean bins or boxes, and should themselves be dry and clean when stored.

Vegetables very quickly absorb bad flavors if left in the vicinity of anything odorous or decomposing, and are thus rendered unwholesome. They should be frequently sorted, and all decayed ones at once removed. Never on any account store vegetables in a cellar with barrels of fermenting pickle brine, soft soap, heaps of decomposing rubbish, and such other *et cetera* as is frequently found in the dark, damp vegetable cellars of modern houses, if you wish to preserve them fit for food.

E. E. K.

KEEPING WINTER APPLES.

An experienced fruit dealer says he does not want to put apples in the cellar or fruit-room, until there is a little hoar-frost inside the barrel. If good, sound apples, and only such, are put in the barrel, and the apples are well shaken down, and the head pressed in so that there is no danger that the apples will shake in the barrel, a slight frost will not hurt them. By this we mean that the barrel can be exposed to quite a sharp frost for a short time without its penetrating deep enough into the barrel to chill the fruit to an injurious extent. The great secret of keeping apples through the winter is to store them in a well-ventilated room or cellar, that is kept as near the freezing point as possible, without actually freezing the apples. Apples and potatoes should never be kept in the same cellar, or if this is unavoidable, the potatoes should be kept in the warmest part of the cellar, and the barrels of apples, well headed up, near the windows, where, on days when the air outside is only a few degrees above freezing, they can be treated to a cold breeze from the open windows, while at the same time the atmosphere in the part of the cellar where the potatoes are kept, does not fall below forty degrees. With a thermometer in the cellar, it is quite possible to cool off the apples without injuring the potatoes. Do not unhead the barrels until the apples are wanted. It is rarely a good plan to sort over the apples to pick out the rotten ones. Better let them remain undisturbed. Apples in ripening, give off carbonic acid, which cannot be allowed to accumulate in the house cellar, but must be removed by ventilation. This deleterious gas, carbonic acid, aids in preserving the fruit; and it is one of the advantages of an outside cellar, that this can be allowed to remain.—*American Agriculturist*.

Whisk Brooms.—A lady writing for the *Indiana Farmer* thus speaks of some of the many uses to which whisk brooms may be put in the household economy:—

“I find little brooms useful in lightening house-work in almost innumerable ways. I keep a little broom to clean the kettles, spiders, sauce-pans, etc. It saves time, does better work, and saves the hands. Every woman loves smooth hands. The little broom helps in this way: You can scrub around the ears of a kettle with it, and hot suds soon makes the sauce-pan shine. Try it. The same little broom does duty as a vegetable cleaner. It washes the

turnips and potatoes quite clean, and much quicker than the hands; and how one does hate to handle dirty vegetables! Just try it! After the clothes are brought in from the line, and ready for sprinkling, a clean little broom, kept solely for the purpose, is dipped in water, and sprinkles the clothes quite as well as a Chinese laundryman can spray the water through his teeth, and it seems ever so much cleaner, too. Then the wash-tubs, wringers, and wash-board are kept in order with almost no labor at all by having a little broom handy to scrub them off with. Pantry shelves, kitchen sink, and table are cleaned with a broom. Even the kitchen windows, in fly time, are washed down first with the inevitable little broom, which cleans the corners of the sashes in less than half the time necessary to accomplish the work without its help. Blacking the stove is no longer dreaded. A little broom puts on the blacking, and does all the polishing necessary, and saves the hands."

Plain Lemon Pie.—To the grated rind and juice of two lemons, add two cups of cold water, the beaten yolks of two eggs, two cups of sugar, and place over the fire. Braid two large table-spoonfuls of corn-starch in a very little water, and add when boiling, stirring briskly for a few moments, until it becomes thickened. Pour into a plain under-crust.

A Thoughtful Daughter.—"Hard at it, I see, Mrs. Blucher."

"Yes, Mrs. Brown; this is my wash-day, and looking after a family of ten don't leave much time on my hands."

"Is that Susie's voice I hear at the piano in the parlor?"

"Yes, that's her. I don't see how I'd get along without that gal, nohow. Al'ays on these days, when I hev the tiringest work, she picks out her nicest pieces, like 'Sweet Rest By and By,' 'Mother's Growing Old,' 'Love will Roll the Clouds Away,' and sings 'em for me while I'm runnin' the duds through the first water. 'Taint every gal as'd be so thoughtful, I can tell you."

—Says a writer in *Good Housekeeping*, "House-keeping is a trade, a profession, and to be an unskillful housekeeper is as shameful as to be a bad mechanic or an ignorant doctor. The best ways are commonly the easiest ways, and those that give most comfort to a household. *Knew how* is a great labor-saving invention, on which there is not a patent." The same writer describes the method of a servant who *knew how* to thoroughly clean a house, which is so full of good hints that we quote it as follows:—

"Hannah's initial move was to put coverings on all the large furniture of the room, and carry out the smaller pieces. More dust appearing beneath the bed than elsewhere, she rolled the bedstead to one side, and made her first collection there, after having brought the sweepings carefully to a common center. Whenever the dust began to accumulate under her broom, the

dust-pan went down, and the burden of sweepings came up and was secure. Short, effectual strokes, with the broom kept close to the carpet, quickly coaxed along the dust, which did not rise in clouds, and there was no threatened cyclone.

When a room had been swept, not sooner, the windows were opened; no duster was brought into requisition till the dust was thoroughly settled. So the rooms were severally gone through; meanwhile, except for some chairs and stands placed outside, the halls gave no intimation of what was going on beyond the doors. When it came to sweeping the halls, and especially in brushing the stairs, the dust-pan was always in hand.

"So, seasonably as satisfactorily, without ado or disturbance, the new help accomplished her forenoon's work, and was seen in the back yard shaking and folding the furniture covers, together with the long brown Holland sacque, made with a hood that came over to her eyes, from which she had emerged fresh and decent, ready to exercise her talents as cook, and prepare the dinner."

—The *Scientific American* states that plush goods and all articles dyed with aniline colors, faded from exposure to light, will look as bright as ever after being sponged with chloroform. The commercial chloroform will answer the purpose very well, and is less expensive than the purified.

—Do not iron a red table-cloth at all; wash it carefully in warm suds, not hot, rinse it well, and when ready to hang on the line, take great pains to pull it so that it will keep the proper shape. It will retain its color much longer than if ironed.

—When making sheets, instead of doubling the cloth and sewing the edges before cutting, as many do, first cut the cloth, then turn one piece about, putting opposite ends together; the sheets will then fold evenly when ironed.

—A few drops of ammonia put into a little water will clean a hair-brush very nicely. If very dirty, use a little soap also. After cleaning, rinse in clear water, tie a string around the handle, and hang up to dry.

—A man moving into a new house, and being pestered by cockroaches, claims to have rid himself of them by feeding them cucumber peelings. He says that the third night the roaches disappeared, and have not since been seen.

—The yellow stain made by the oil used on sewing-machines can be removed, if, before washing in soap-suds, you rub the spot carefully with a bit of cloth wet in ammonia.

—For cracks in stoves: Finely pulverized iron procured at a druggist's, made into a thick paste with water-glass.

Literary Notices.

FARM, FIELD, AND STOCKMAN: Howard and Wilson Publishing Co., 89 Randolph St., Chicago, Ill.

We are in receipt of a sample copy of this, a well-known agricultural and family journal, and learn from its columns that it has recently been purchased by Gen. C. H. Howard and Jas. W. Wilson. It is to be published weekly, beginning December 1st. It contains sixteen pages, neatly printed and bound. It is to be conducted strictly in the interests of the class who read it,—the farmers, with whom its publishers are in full sympathy.

Mr. Wilson is an experienced seedsman, and the free distribution to its readers of choice new varieties of seed potatoes, seed grain, and seeds, of which they have a large supply on hand, gathered from different parts of this country and Europe, will be a leading feature. Those who subscribe this year, will get twenty packets, in addition to fifty-two numbers of the paper. The subscription price is \$1.50 a year, including the seeds.

LETTERS FROM A MOTHER TO A MOTHER, ON CHILDREN'S TEETH, by Mrs. M. W. J., third edition, revised and enlarged: Welch Dental Co., 1413 Filbert St., Phila. Price 30 cents.

This is a little pamphlet of one hundred and six pages, full of most excellent hygienic suggestions for mothers who wish to rear their children with sound teeth, the value of which, from both an artistic and a healthful point of view, can hardly be overestimated. The author of the little work is a woman who seems to thoroughly understand her subject, and has presented it in a pleasing and interesting way, which will well repay a careful reading.

BROOKLYN MAGAZINE: Brooklyn, N. Y. Subscription price, \$1.00 a year.

Canon Farrar opens the November number with a decidedly notable and eloquent paper on the question, "Should America have a Westminster Abbey?" In no previous production from the pen of this gifted and distinguished English preacher, has his love and admiration for America, our institutions, and great men, ever been so eloquently made manifest as in this paper; and to the general question of the wisdom of an American Westminster, this article is unquestionably the most notable contribution yet made. The pages of the same issue are further enriched by three more chapters of Mrs. Admiral Dahlgren's, "Lights and Shadows of a Life." A third article of value is a capital sketch of Clara Morris and of her charming home on the Hudson, by Mrs. Lisle Lester. Full justice is done the great actress, and in a manner that is as entertaining as it is interesting. An able review of "The Military Organ-

ization of Brooklyn," by General E. L. Molineux and one of Mrs. Henry Ward Beecher's instructive "Talks," are also printed, as well as poems by Hattie Tyng Griswold, George Birdseye, and some twenty pages of department reading, which show careful editing and a wise selection.

BABYHOOD for December, which is the first number of its second year, contains a quantity of timely Christmas suggestions as to what to buy for Baby, etc., and reverts to the subject of "Compulsory Kissing," this time in its medical aspect. "Rocking Baby to Sleep" is the title of one of many interesting letters in the "Mothers' Parliament." Dr. Cyrus Edson, of the New York Board of Health, writes on "Preserved Milk," exposing certain processes employed by unscrupulous dealers, and giving directions for testing milk to ascertain if it has been chemically tampered with. "The Spoiling of Children" is a sensible article by Charlotte Ellis; Eleanor Kirk writes upon "Grandmothers," and Dr. F. H. Bosworth upon "Taking Cold." 18 Spruce Street, New York. 15 cents a copy; \$1.50 a year.

NOTES OF TRAVEL IN NORTHERN EUROPE, by Charles Sumner, New York: Andrew J. Graham, 744 Broadway.

Books of travel are almost numberless, but we have seldom perused a more pleasing volume than the one with the above title. The scenes of the sketches are nearly all in Sweden and Norway; and while the descriptions of places are fine, the accounts of the manners and customs of the people and their public institutions are so vivid and interesting that one feels, while reading them, as if he, too, were taking a real *bona fide* journey through Northern Europe. The book is profusely illustrated with views, portraits, maps, and plans engraved expressly for the work.

THE EUREKA RECITATIONS AND READINGS: Published by J. S. Ogilvie & Co., 31 Rose Street, New York.

We have just received from the Publishers a copy of this new series of Recitations. It is a very good collection, and has been compiled and prepared by Mrs. Anna Randall-Diehl, whose reputation as a writer of standard works on Elocution, and also as a teacher of the art, is second to none. It is especially adapted for Day and Sabbath Schools, all Adult and Juvenile Organizations, Young People's Associations, Reading Clubs, Temperance Societies, and Parlor Entertainments. They comprise Prose and Poetry—Serious, Humorous, Pathetic, Comic, Temperance, and Patriotic. All those who are interested in providing an entertainment, should have this collection. Each one contains 128 pages, and is bound with a handsome lithograph cover printed in four colors, and will be mailed to any address, post-paid, on receipt of twelve cents in stamps.

Publisher's Page.

Good Health for 1886.—The attention of our subscribers is respectfully called to our prospectus for 1886, which will be found among the advertising pages of this number.

The New Dress of Good Health.
—It is now six years since GOOD HEALTH changed its name, and now it proposes with the new year to change its dress. The publishers have had made, at considerable expense, a new and appropriate design for the cover, which will add greatly to the attractiveness of the journal, and the managers trust that its friends will be pleased with the change. All who have seen it say it is "beautiful," "artistic," "exactly the thing," "most appropriate," etc., etc.

Will some one have the kindness to say to Mr. John Smith that his subscription to GOOD HEALTH expires with the December number, and that if he doesn't remit to the publishers one dollar for the paper for 1886, he will be obliged to suffer the extreme penalty of the law, namely, his name will be stricken from the roll of GOOD HEALTH subscribers? His wife and children, as well as himself, will be deprived of one of the most necessary of family conveniences, and will be left to wander without guide or compass among the dark and dangerous masses of unhygienic heathendom. Urge him to send on that dollar at once; and if he hesitates, keep at him until he comes to terms.

GOOD HEALTH is conducted on a strictly pay-in-advance basis. When it is time for the subscription to run out, a bill is sent for the journal for another year. Several hundred of our subscribers will receive such bills soon after this number of the journal is received. Please give the matter ATTENTION AT ONCE.

With this number, GOOD HEALTH concludes its twentieth annual volume. During all these years, it has endeavored to be an earnest exponent of hygienic truth, and a fearless advocate of the principles it represents. The single aim of the managers of the journal has ever been to use its influence, so far as might be, in the building up of a higher and nobler type of manhood and womanhood. The deteriorating tendencies of the age unquestionably, on the whole, preponderate, setting a strong tide in the direction of degeneracy and decay. It is manifestly the duty of all enlightened men and women to lend their influence for the support of every enterprise which is calculated to oppose this downward current.

During all these years, thousands of earnest people have joined hands with us in endeavoring to lift up to a higher platform, and to place upon a smoother and better pathway, groveling and struggling humanity. Quite a goodly number of those who welcomed the journal nearly a score of years ago, still wait with pleasure for its monthly visits, and give to it their earnest and cordial support. Thousands of others have recently become interested in our reformatory mission; and as each year ends, and the new year begins, they show their love for the principles which we are earnestly endeavoring to maintain, by renewing their pledge with us for another year's work in the same good cause. Others there are, who seem like the little birds at sea, which sometimes come on shipboard to rest, and then fly away, never to return.

To those of our subscribers who have enlisted with us during the year just closing, we say, We want you to stay with us. The work we are trying to do, however imperfectly it may be done, is in a noble and glorious cause. Its sole aim is to enlighten those who are sitting in darkness; to bring comfort to those who are sighing for relief; to show a way of escape to those who are burdened with the thralldom of physical sufferings and disabilities, arising from the violation of physical laws. This work is one in which every true philanthropist, every individual who really desires the welfare of his fellow-men, must be interested. Those whose acquaintance we have made during the year 1885, we hope to keep with us during the year to come, and feel confident that if they have found in our

columns for the year just closing, information which they consider valuable, they will, during the coming year, find each number more richly freighted with hygienic good things than its predecessor. Send in your dollar, friends, and we will pledge ourselves for 1886 to send you in return a better paper than we have ever before sent out to our subscribers.

A New Book.—The Health Publishing Co. are just issuing a new work entitled, "Man, the Masterpiece," or Plain Truths Plainly Told about Boyhood, Youth, and Manhood. The book will consist of 620 pages, octavo, printed in beautifully clear type, on fine paper, and will be substantially bound in cloth, leather, and half-morocco styles. It contains in a nutshell what every boy ought to know in order to become a pure, noble, and useful man. The publishers anticipate a very large sale. This new work will be sold by subscription. The Western publishers are Condit and Nelson, of Des Moines, Ia., to whom communications from agents desiring territory in the Western States, should be addressed. Others should address, Health Pub. Co., Battle Creek, Mich.

A Book both New and Old.—Less than ten years ago, the first edition of "Plain Facts" made its appearance. During the first three years after its publication, two or three small editions were sold. At the end of that time Mr. I. F. Segner, of Burlington, Ia., who had previously had an extensive experience, and most extraordinary success in the publication and management of subscription books, became interested in the work, and since that time twenty large editions of the book, aggregating annually 100,000 copies, have been placed in the hands of the reading public. To say that the success of the work has been chiefly due to Mr. Segner's indomitable energy, undaunted perseverance, and rare qualifications for the business, is certainly giving no more than just credit; since without such aids in this age of competition, and at a time when the country is deluged with books of every description, the work would never have attained, in so short a time, such enormous popularity. For a long time, the author has earnestly desired to revise and enlarge the work, and renew the plates which were much worn by service, and we are glad to announce that at last the work of revision is completed, and an edition in its new form will shortly appear. The revised edition contains a large amount of valuable additional matter. It has a full page, a clear and elegant style of type, and is run on finer paper than before. The additional matter brings the work up to 600 pages. Prospectus books are now ready. The sale of the work in this country and Canada, is controlled entirely by I. F. Segner, of Burlington, Iowa.

Health and Temperance Tracts.
—We are preparing a new series of twenty-five four-page health and temperance tracts, each of which will be appropriately illustrated. The following is a list of the titles:—

GENERAL HYGIENE:—

1. A Plea for Pure Air.—2. How to Ventilate a Home.—3. What's in the Well?—4. A Back Yard Examined.—5. Inventory of a Cellar.—6. Cayenne and its Congeners.—7. A Live Hog Examined.—8. A Modern Plague.—9. A Peep into a Packing House.—10. How to Live a Century.

TEA AND COFFEE:—

1. Tea and Toppers.—2. Tea and Coffee Drinking and Intemperance.—3. Contents of a Tea-Pot.—4. Tea Tasters.—5. Tea and Coffee and Nervousness.

TOBACCO:—

1. A Relic of Barbarism.—2. Tobacco Poison.—3. Tobacco Blindness.—4. Science and Tobacco-using.—5. The Smoke Nuisance.

INTEMPERANCE:—

1. The Rum Family.—2. Alcoholism.—3. A Drunkard's Stomach.—4. Gin Livers.—5. A Rum Blossom.

These tracts will be put up in packages, either assorted or of a single kind, as is desired, and retailed at ten cents per package. A very little discount will be given to those purchasing large quantities for gratuitous distribution. They promise to be enormously popular. Orders have already been received for more than one million copies.

Canvassers Wanted.—Fifty smart canvassers are wanted at once to engage in introducing GOOD HEALTH and health works in every part of the U. S. and Canada.

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