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Fever-Factories.

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THE prediction of the New Orleans *Medical Journal*, that the vital and material losses of the Southern States by the last epidemic would exceed the costs of our Mexican War, has been fully verified; but by its very magnitude the calamity may prove a less unqualified evil if it should help to open our eyes to the true nature and the origin of what has too long been considered a mysterious and unavoidable plague.

The hope of solving the riddle of the periodicity and topographical predilections of the fever-fiend suggested a careful comparison of the pathological statistics of our Spanish-American neighbors with those of our Southern lowlands; and these studies have revealed some curious facts, which the correspondents of our medical periodicals have corroborated rather than explained.

It appears that a disease which our ablest physicians have described as intensified malaria, has by no means confined itself to the malarious, *i. e.*, swampy regions of the Atlantic slope, but in a great majority of cases may be traced to a city, or a well-drained but thickly-populated district, where the dietetic and domestic habits of the Caucasian race predominate over those of the American aborigines. Among many of the Indian tribes that inhabit the marshy lowlands and humid coast-forests of our continent, fevers are, on the other hand, wholly unknown; while Europeans who visit such regions, or natives who adopt European modes of life, become liable to a variety of enteric disorders.

Vera Cruz, *la Ciudad de los Muertos*, "the City of the Dead," as the Mexicans call it, on account of the frequency of its yellow-fever epidemics, is situated on a barren and extremely dry coast, remote from all swamps, and surrounded by arid sand-hills; while the natives of the peninsula of Yucatan, with its swamps and inundated virgin forests, are considered to be the healthiest and hardiest portion of the Mexican population. La Guayra, Caracas, and Santiago de Cuba, in spite of their mountainous environs, complain of the terrible regularity of their autumnal epidemics; but in the valley of the Amazon fevers were unknown before the arrival of the European colonists, and are still monopolized by the creoles and negroes of the larger settlements. The forest tribes of the Madeira, says Bonpland, cautioned the missionaries against the use of animal food, and warned them that it would produce a disease which, like original sin, could only be cured by baptism, *i. e.*, frequent shower-baths and invocations of the Great Spirit; and Bernal Diaz tells us that the subjects of Montezuma were afflicted with an eruptive disease, more painful though less incurable than leprosy, but that fevers made their first appearance with the Spaniards, and were long limited to the district of Toltepec (in the valley of Anahuac), and the Spanish quarter of the city of Tlascala.

During the long centuries of the *Juventus Mundi*, forests and swamps were almost synonyms, as they still are in the lower latitudes of America and Eastern Asia. Animal life swarms and revels in such regions. Herbivorous and carnivorous animals, and our cousins the anthropoid apes, thrive in the moist woodlands of the torrid zone; and the Asiatic Malays, the natives of Soodan and Senegambia, and the aborigines of our own continent, have inhabited the swampiest districts of the tropical bottom-lands for ages with perfect impunity. They do not employ any of the antidotes by which the stranger hopes to secure himself against what he calls climatic influences, and that their immunity is not the inherited privilege of a special race is demonstrated by the diseases of the Mexican Indians, who have adopted the diet of their Spanish masters, and of the West African

negroes, who have been carried to the far less swampy islands of the West Indian Archipelago. Dietetic differences alone can, therefore, furnish a logical explanation, and these differences may be comprised in a few words: the savages of the tropics avoid calorific food.

Like their next neighbors, the Hindoos, the natives of Siam and the Sunda-Islanders are mostly frugivorous. Rice, fruits, nuts, and milk constitute their principal diet, and only famine can reduce them to the use of animal food; they eschew the sudorific drinks of their European masters, and their only stimulant is a cooling alkaloid, the coagulated juice of the betel-nut palm, which they chew with an admixture of shell-lime. The mountaineers of Abyssinia and the inhabitants of the chilly South African highlands are carnivorous; but the natives of Guinea and Soodan, like the Arabs of the Desert, keep cattle and sheep for the sake of their milk, and use their flesh only in times of scarcity or in war. Our Spanish neighbors divide the copper-colored race into two well-defined classes, the *Indios Mansos* and the *Indios Bravos*, "the tame and ferocious Indians:" the first the frugal, Hindoo-like inhabitants of the coast-forests from Yucatan to Peru; the second the cruel hunters of men and beasts, who roam the wilds of the great West and the table-lands of Northern Mexico and Patagonia. The *Indios Mansos* of Yucatan, for instance, live on bananas, corn-cakes, brown beans fried with a little butter or palm-oil, and the abundant berries and nuts of their native forests, and enjoy an exceptional longevity and freedom from all sicknesses whatever, in all of which respects they resemble the ancient Peruvians, who had no physicians, as Devega remarks, because their only sickness was an incurable one—old age.

Our cities are atmospheric bake-ovens. They exclude the horizontal air-currents that sweep freely through the shady arcades of the forest, but they admit sunlight and retain their self-created heat, their dust, and their sudorific vapors. We have inherited the antique passion for whitewashed houses and stone fences that reflect the sun's rays with a distressing glare, while we have abolished the intramural gardens and free public baths that alleviated the summer sufferings of the ancient Mediterranean cities; but our hyperborean diet is perhaps a still more prolific source of evil.

The experience of all tropical and subtropical nations has taught them to avoid animal food and fat, and to counteract the influence of a sultry climate by cooling, nonstimulating drinks and fruit; for a three or four years' neglect of these precautions is sure to undermine the soundest constitution, as demonstrated by the fate of countless employés of the East Indian administration, who left Great Britain as models of Saxon or Celtic *vis virilis*, and returned as tremulous invalids after a few hundred beefsteak-and-ale dinners in the atmosphere of the Lower Ganges Valley. The advent of our autumnal night frosts and bracing north winds saves most of us from the ultimate consequences of this East Indian malady; but not one man in a thousand escapes the *pro tempore* penalties of living through the tropical quarter of the solar year as if he were fighting the battle of life against an arctic snow-storm. Cold air is a tonic and antiseptic, and under its influence many substances which Nature never intended for our food become healthy or at least digestible; for a Kamtchatka fisherman can swallow as his daily ration a dose of blubber and brandy that would kill seven Hindoos. The pork-steaks and bitters that feed the fire of life in December smother it in August like so much incombustible rubbish, or evolve fumes that obscure its brightness, till we yearn for the equinoctial gale like a becalmed mariner in a fog, or take refuge from hypochondria in the summerless heights of a mountain-region; and if starvation were not so often superadded to the cold and the darkness of the season of short days and long nights, it would be very doubtful if the bitterest winter sorrows of the children of Nature could compare with the self-inflicted summer-martyrdom of a European or North American dyspeptic. For languor, dull headaches, nausea, and troubled dreams, though singly and momentarily no very serious evils, can aggregate in a sum of misery that has induced all Northern nations to make a high temperature the chief characteristic of the pit of torment.

The antidotal resources of Nature counteract the evil for a while; diarrhea, retching, and intermittent fevers discover her efforts to secrete an indigestible substance; the suicidal diet is modified, in quantity at least, by nausea and loss of appetite, and the periodical north winds that reduce the summer temperature of our Southern States by twenty or thirty degrees may help to postpone the crisis for weeks and months. But if that palliative fails, and the devotee of established customs pursues his course with intrepid fanaticism, the barriers of life yield at last, and Nature ends an evil which she cannot cure. The direct cause of yellow fever is the inability of the vital power to withstand the double influence of moist heat from within and without.

As its name implies, a fever epidemic is a contagious disease, and it cannot be denied

that by prompt removal from the infected atmosphere innumerable candidates of the winding-sheet might be saved; but it is quite as certain that even persons of a frail constitution, but innocent of dietetic sins, may breathe with impunity the air in which thousands of their stricken fellow-citizens have recently expired. Everywhere the mortality lists show a great preponderance of males over females, of men of sedentary pursuits over open-air laborers, and of epicures over ascetics. Catholic seminarists, Sisters of Charity, vegetarians, and tramps have enjoyed a remarkable immunity, owing to their voluntary or involuntary habits of abstinence. Worried physicians, spectral old spinsters, and smoke-dried presbyters, have generally survived, while corpulent beer-brewers, lusty landlords, and chubby butcher-boys, went down like grass under a sweeping scythe; and the local papers of New Orleans and Vicksburg have repeatedly called attention to the fact that the business men who declined to close either their earthly career or their stores were mostly Italians and Jews.

The lessons of the last epidemic find numerous precedents in the history of former times. The *black death* that ravaged Asia and Southern Europe in the fourteenth century spared the Mohammedan countries—Persia, Turkistan, Morocco, and Southern Spain—whose inhabitants generally abstained from pork and intoxicating drinks. In the Byzantine Empire, Russia, Germany, France, Northern Spain (inhabited by the Christian Visigoths), and Italy, 4,000,000 died between 1373 and 1375; but the monasteries of the stricter orders and the frugal peasants of Calabria and Sicily enjoyed their usual health (which *they*, of course, ascribed to the favor of their tutelar saints). Among the cities which suffered most were Barcelona, Lyons, Florence, and Moscow, the first three situated on rocky mountain-slopes, with no lack of drainage and pure water, while the steppes of the Upper Volga are generally dry and salubrious.

The pestilence of 1720 swept away 52,000, or more than two-thirds of the 75,000 inhabitants of Marseilles, in less than five weeks; but of the 6,000 abstemious Spaniards that inhabited the "Suburb of the Catalans" only 200 died, or less than four per cent. The most destructive epidemic recorded in authentic history was the four years' plague that commenced in A. D. 542 and raged through the dominions of Chosroes the Great, the Byzantine Empire, Northern Africa, and Southwestern Europe. It commenced in Egypt, spread to the east over Syria, Persia, and the Indies, and penetrated to the west along the coast of Africa and over the continent of Europe. Asia Minor, with its plethoric cities, Constantinople, Northern Italy, and France, suffered fearfully; entire provinces were abandoned, died out and remained vacant for many years, and during three months 5,000 and at last 10,000 persons died at Constantinople *each day!* (Gibbon's "History," vol. iii., chap. xliii.); and the total number of victims in the three continents is variously estimated from 75,000,000 to 120,000,000. But in Sicily, Morocco, and Albania, the disease was confined to a few seaport towns, and the Caucasus and Arabia escaped entirely.

This dreadful plague made its first appearance in Alexandria, Egypt, then a luxurious city of 800,000 inhabitants, and Paulus Diaconus, a contemporary historian, speaks of the "reckless gluttony by which the inhabitants of the great capital incurred yearly fevers and dangerous indigestions; and at last brought this terrible judgment upon themselves and their innocent neighbors" (lib. ii., cap. iv.). Alexandria lost half a million of her inhabitants in 542, and 80,000 in the following year, and for miles around the city the fields were covered with unburied corpses; but the monks of the Nitrian Desert (3,000 of them had devoted themselves to the task of collecting and burying the dead) lost only fifty of their fraternity, who, with few exceptions, confessed that they had secretly violated the ascetic rules of their order.

If the thirteen centuries since that year of judgment had been employed in the study of physiology and hygiene rather than in Trinitarian and Monophysite disputes and transubstantiation controversies, we might know by this time that the repetition of the excesses of the Egyptian capital in an Egyptian climate will always provoke an Egyptian plague, and that the observance of some simple dietetic rules would insure our health against the most malignant climatic influences. Southern cities like New Orleans, Memphis, and Galveston, that consume from 500 to 5,000 barrels of pork, and four times as many kegs of lager-beer and gallons of whisky each summer day, while they confine forty or fifty per cent. of their population in stifling tenement-houses, schoolrooms, and workshops, and, instead of providing free public baths, legislate against river-bathing within their corporate limits—such cities, whether situated in the swamps, like New Orleans, or on dry hills, like Memphis, are fever-factories, and produce epidemic diseases by the use of calorific food in a sweltering climate, as systematically as the New Orleans ice-factory evolves cubes of congealed water by the evaporation of ether in and around its copper water-tanks.

To our dietetic abuses and the deficient

ventilation of our buildings and *bodies*, we can ascribe the fact that the average mortality of the half-year from June to November exceeds that of the remaining six months by twenty per cent. on the table-lands, and by more than thirty per cent. along the sea-coasts of the two Caucasian continents; but this increase of the death-rate is only a small part of the sum total of our self-caused summer martyrdom. If we could weigh the nameless discomforts, the weariness, the physical and moral nausea, and the unsatisfied hunger after the life-air and freedom of the wilderness, endured by millions of factory-children, shop-keepers, and counting-house drudges, if we could weigh all their misery against the hardships of the savages and half-savage nomads, we might agree with the Benthamites, that, measured by the criterion of the greatest happiness of the greatest number, modern civilization is a very indifferent success. "There is something pathetic in every suicide," says Montesquieu, "for the fact that life had become insupportable to a human being could not be more conclusively proved." But the same fact is proved by every premature death, for the destructive agencies of Nature never assert themselves till the evils of life outweigh its blessings. When Vishnu resigns his power to Shiva we may be sure that annihilation is the more merciful alternative.

A privileged small minority, some happy few among the upper ten per cent. of our city population, can celebrate the holidays of their luxurious year, when rising thermometers, dust-clouds, kitchen-fumes, woolen garments, and peppered ragouts, kindle the fires of Moloch in our veins; but what shall we do to be saved if poverty or duty prevent us to save ourselves by flight to the White Mountains? A century may pass before chemists invent the art of cooling our houses by an artificial process as cheaply and effectually as we warm them by fire; but in the meantime we might restrict our calorific efforts to the eight coolest months of the year.

In the first place we might curtail the number of our warm meals, or cook them on the coöperative plan in a separate building, where ten or twelve families could use a common stove and a joint stock of fuel and certain groceries, and thus save our sitting-rooms and studies from the effects which even a basement-kitchen fire exerts on the domestic atmosphere. Heat-producing food, too, might well be dispensed with. The vegetarian school has demonstrated beyond the possibility of a doubt that farinaceous dishes, sweet milk, and fruit, are sufficient to maintain a hard-working man in perfect health; and such a diet might certainly be substituted for our greasy steaks and ragouts during the hottest weeks of the sultry season. Whether or not such mild stimulants as tea and coffee are preferable to pure water, it is certain that they are sudorific drinks, and that even their moderate use increases the temperature of our blood by several degrees during their passage through the digestive apparatus. Smoking-hot dishes and such spices as pepper, mustard, onions, and ginger, are liable to the same objection, and we should not forget that sultry weather retards the digestion of all fatty substances by several hours.

To take plenty of rest after meals is another health rule which we might adopt on the authority of our instinct-guided fellow-creatures, if not of our sensible ancestors, who surpassed us in physical vigor and hygienic insight as much as we exceed them in mechanical or astronomical knowledge. In obedience to an urgent instinct, wild animals retire to their hiding-places after a hearty feed, and digest in peace; and the ancient Greeks, as well as the Romans of the ante-Cæsarean era, contented themselves with one daily meal, which they ate leisurely in the cool of the afternoon after completing their day's work. The rest of the evening they devoted to music, conversation, dances, and light gymnastics, and had thus all night, besides the larger part of the following day, for digestion, could assimilate their food, and probably derived more enjoyment from that one meal than we do from our hurried dinners, late suppers, luncheons, and "Christian breakfasts"—true *déjeuners dinatoires*, that dull our brains and limbs during the first three or four post-prandial business hours.

For a quarter of a year, at least, we might get along with two daily meals, one at noon, after finishing the larger and harder half of our day's work, on an "empty stomach" (which custom would soon make a resigned and very comfortable stomach), then a *siesta* of three or four hours; work till sunset, and then a bath, followed by a leisurely symposium and such domestic amusements as our tastes and opportunities might suggest.

But "the best of all things is water, after all," was Pindar's motto, and should be our motto in summer-time, in regard to pure cold water, externally applied. In the crowded cities of the Atlantic seaboard and the Lower Mississippi Valley, whose summer temperature equals that of southernmost Europe, the lot of the hard-working classes would be exceedingly improved by the institution of free public baths. The citizens of the Roman empire regarded their *thermæ* and their *balnea publica* as the chief criterion of a civilized

town; and it is strangely characteristic of the metaphysical and anti-natural tendency of our ethical system that not one of our wealthy philanthropists ever thought of promoting the welfare of his native city by an establishment which an enlightened community should value as a common necessity rather than as a luxurious privilege.

The baths of Caracalla, which furnished the means of physical purification to tens of thousands, were certainly as useful—practically and morally—as the Serapion or the temple of Jupiter Capitolinus; and one per cent. of the wealth that has been expended on churches, Sunday-schools, foreign missions, and other attempts to secure the *post-mortem* felicity of the masses, would suffice to make their terrestrial existence far more endurable. —*Popular Science Monthly.*

An Instructive Contrast.

[THE following very sensible words were written by an observing correspondent of a Philadelphia journal nearly fifty years ago. The observations made are too good to be forgotten.—ED.]

I have recently had an opportunity of contrasting the appearance of an aged and a young man of sedentary habits, whose history may serve as a warning to some of your readers. The one is seventy-five years of age; yet from his erect form, firm movements, and cheerful and healthy countenance, he seems not to have reached the age of sixty-three. He is of about middle height, strong and muscular, having none of that pallid and emaciated appearance which is so common among literary men of the present generation; although the fact that he has been a laborious instructor of youth for about half a century would naturally have led us to other expectations. There is no appearance of decay in any of the mental faculties; on the contrary, he composed, in my presence, at the request of a friend, an original article on a given subject, that exhibited all the vigor and activity of youthful intellect, and would have done honor to the ablest periodicals of our country. His religion, too, wears none of that somber hue, which, in an instructor, is so peculiarly uninviting, and which often counteracts the natural tendency of the most important precepts, even when delivered with all the solemnity which their importance demands.

The other person seems, in some respects, to belong to a different race of beings. Pale, feeble, emaciated, and sickly, with slender and enervated muscles, and with an anxious countenance: at only thirty-five years of age, he seems scarcely younger than the former, and affords a striking specimen of the evils of premature mental development, in dooming a towering mind to perpetual imprisonment in a feeble body, and subjecting both to consequent premature decay and dissolution.

Whence this surprising difference? It is claimed that physical peculiarities may be *inherited*, even from a generation quite remote from us. In the present case, however, there is no evidence of any such transmission; but we have *prima facie* evidence that causes exist fully adequate to the production of present appearances. In such a case, it is unphilosophical to refer to others more remote and obscure.

The education and habits of the two persons have made the difference. One of them was born in an age when it was not so fashionable as now to sacrifice health of body for the sake of intellectual attainments—when if less Greek and Latin were *acquired*, less vigor of body was lost during the process—when, too, it was not deemed indispensable to push the pupil through his course of study at the earliest period possible; as if the salvation of a country or of the universe depended on his appearance upon the world's great theater by the moment he was eighteen years of age. Until he was twenty years old, he was engaged in agricultural and other manual labors, receiving no other instruction than what was afforded to the mass of the community at that time. At the age of twenty or twenty-one he commenced a course of study, and subsequently to this became a useful minister and instructor. But through the whole period of his long life, whether employed in instructing himself or others, he has never failed to use much physical exercise in the open air, daily; both from choice and a conviction of its utility.

The other person, though born within the same boundaries of country, had the misfortune to be subject to a train of influences less happy. Particular circumstances, together with certain accidental occurrences, restrained him from taking part in the sports and other pursuits of those of his own age, and his mind was easily directed to books as sources of amusement. His rapid advances in his studies became a theme of conversation among his friends and acquaintance, and no pains were spared to aid him in his progress. The desire of pleasing his friends, emulation, and perhaps the love of learning for its own sake, all combined to fix his attention and occupy his time, chiefly in mental efforts. By the time he was eighteen he had completed his aca-

demical studies, and acquitted himself with honor. When engaged as an instructor, and in other avocations demanding much mental exertion, the habits of study he had acquired led to the neglect of physical exercise, till, involved in the horrors of dyspepsia, he discovered, almost too late, his error, and has long been doomed to a state of physical debility which will not only in a measure disappoint the hopes of his friends, but materially diminish his own usefulness and happiness.

By a more rational education the elder individual to whom I have alluded escaped those deteriorating influences to which the other was subjected; and though his mental faculties might have been longer in unfolding, yet the process was vastly more in harmony with the development of his physical frame and moral powers. In the enjoyment of full health, by alternating labor with sedentary employments, he has been able to sustain such a degree of mental exertion as would have destroyed a *modern* student; and to continue his labors to *threescore and ten!* The younger, on the contrary, a sufferer perpetually from premature mental effort, undertaken without regard to suitable relaxation and daily physical exercise, is sustained amid a burden of care and fatigue by that resolution and determination, I had almost said *desperation*, which rational philanthropy and Christian benevolence, quickened by a sense of his own woes and a knowledge of their cause, can alone produce. A course, however, which must in all probability cut short, even of the narrow limits of threescore and ten, a life devoted without reserve to the best interests of mankind.

Too long has it been the predominating purpose of parents and instructors to elicit *mind* merely—to expand or at least to fill the intellectual domain, come of physical and moral well-being what might. A prodigy in intellect has been hailed as Heaven's special favorite, and either directly or indirectly held up as a worthy object of universal admiration and imitation; forgetting what injury is done to the moral character or to the health. For my own part, if I rejoice at all at precocious mental development, it is with much trembling lest it should bring in its train the ruin of the body and the contamination of the soul. Let mind be developed, but no faster at any given time than is consistent with the cultivation of moral character, and firm, vigorous, and increasing health. The moment we overstep these natural limits, not the mind only—not the particular faculty which is overstrained alone—but the whole system suffers. "Whether one member suffer, all the members suffer with it; or one member be honored, all the members rejoice with it," is alike the language of experience and of revelation.

Death Produced by the Fear of Dying.

THE importance of removing every cause of fear from the minds of those who are laboring under disease, and of inspiring them with hopes of recovery, is well understood by every experienced practitioner. A fearful and desponding state of mind will often render unmanageable, or even fatal, a slight affection; while a serene and buoyant disposition has frequently carried a patient through a serious attack during which his life was placed in the most imminent peril. In all dangerous diseases, the person in whom there is the least fear of dying, has invariably, other circumstances being the same, the fairest chance of surviving. Men of a desponding temperament are apt, in critical situations, to be overwhelmed by their very terrors; they are drowned by their too eager struggles to emerge—they would keep afloat if they but remained quiescent.

One circumstance which may tend to protract, year after year, the life of consumptive patients, is that they in general either do not expect a fatal event or wait for it with an exemplary and enviable resignation. This interesting, and for the most part, amiable class of patients excite the sympathy of others in proportion as they appear to be divested of anxiety about themselves. They often seem to leave us most willingly with whom we are least willing to part.

Predictions of death, whether supposed to be supernatural or originating from human authority, have often, in consequence of the depressing operation of fear, been punctually fulfilled. The anecdote is well attested of the licentious Lord Littleton, that he expired at the very stroke of the clock, which, in a dream or supposed vision, he had been forewarned would be the signal of his departure.

It is recorded of a person who had been sentenced to be bled to death, that, instead of the punishment being actually inflicted, he was made to believe that his veins had been opened by causing water, when his eyes were blindfolded, to trickle down his arm. This mimicry of an operation, however, stopped as completely the movements of life as if an entire exhaustion of the vivifying fluid had been effected. The individual lost his life, although not his blood, by this imaginary venesection. We read of another unfortunate being who

had been condemned to lose his head, that the moment after it had been laid upon the block a reprieve arrived; but the victim was already sacrificed. His ear was now deaf to the dilatory mercy, the living principle having been as effectually extinguished by the fear of the axe as it would have been by its fall. Many of the deaths which take place upon a field of battle, without the individuals being wounded in the slightest degree, all of which were formerly attributed to the wind of a flying ball, are no doubt to be accounted for from the sedative effects of intense fear. In Lesinky's voyages around the world there is an account, the truth of which is attested by other navigators, of a religious sect in the Sandwich Islands, who arrogate to themselves the power of praying people to death. Whoever incurs their displeasure receives notice that the homicidal litany is about to commence; and such are the effects of imagination that the very notice is frequently sufficient, with these poor people, to produce the effect. Tell a timorous man, even though brought up amid all the light of civilization, that he will die, and if he has been in the habit of looking up with reverence to your opinion, in all probability he will sink into his grave—though otherwise his life might have been prolonged. Pronounce the sentence with sufficient decision and solemnity, and, under certain circumstances, it will execute itself.

We are not advocates for imposing wantonly or unnecessarily upon the hopes of an invalid, under the pretense of remedying his distemper. Deception, however skillful, is liable to discovery, and when once detected an individual forfeits his future right to credit and authority. By raising hopes where the speedy event shows that there existed no ground for them, we deprive ourselves of the power forever after of inspiring confidence in those cases where we have not the least suspicion of danger. But by terrifying the imagination of the sick, to *create* danger, where none had previously existed, by some treacherous logic to reason an individual into illness, or when a trifling ailment is present to aggravate it into a serious malady, by representing it as already such, is what we would most strenuously urge all who are called upon to minister to those of feeble health, or to surround the bed of sickness, carefully to guard against. Let the expression of gloom be banished from the face of the medical attendant. Let the language of cheerfulness and comfort dwell upon his tongue—but above all, guard the sick from the melancholy foreboding and gloomy predictions of indiscreet friends and tattling neighbors.

If, during a serious illness, a patient hears accidentally of the death of some old acquaintance, especially if it be a person of nearly the same age as himself, or affected with the same or a somewhat similar complaint, it will, not so much from sorrow for the loss as by exciting or aggravating his apprehensions for his own fate, be calculated to produce an unfavorable effect upon the termination of his malady. Even in ordinary health, the shock we feel at the final departure of a friend still in the prime of life, may often arise, in part at least, from the unwelcome hint which it gives us of our own mortality. Another circumstance which has often accelerated death, is the preparation which we make for it, when sickness has approached us, in the *post obit* disposal of our worldly property. Many a sick man has died of making his will. After having fixed the signature to his last testament, viewing it as a kind of prelude to the funeral ceremonies, the spirits and strength of the invalid will often be found irretrievably to sink; no mental stimulus will subsequently arouse him, no medicine afford mitigation to his complaint. This fact constitutes a powerful argument in favor of performing this duty to survivors whilst yet in a state of health and vigor, when the task will have a better chance of being judiciously executed, and at the same time, without any risk of disturbance or injury to the body or to the mind.—*Sel.*

Nutrient Value of Different Kinds of Food.

In the year 1832 about the first accurate observations upon this subject were made by M. M. Percy and Vauquelin, two eminent chemists, members of the French Academy. We give below the results of their observations with remarks upon the same by a sanitary journal of that time.

Of *Bread*, every 100 lbs. weight were found to contain 80 lbs. of nutritious matter. *Butcher's Meat*, averaging the various sorts, contains only 35 lbs. in 100; *French Beans* (not the green pods, but the seeds), 92 lbs. in 100; *Broad Kidney Beans*, 89 lbs.; *Peas*, 93 lbs.; *Lentils* (a kind of half pea, but little known in this country), 94 lbs. in 100. *Greens* and *Turnips*, which are the most aqueous of all the vegetables used for domestic purposes, furnish only from 6 to 8 lbs. of solid nutritious matter in 100; *Carrots*, 14 lbs.; and *Potatoes* yielded only 25 lbs. of a substance valuable as nutrition, in the 100. One pound of good bread, therefore, is equal to upwards

of three pounds of the best potatoes, and 75 lbs. of bread with 40 lbs. of meat are equal to 300 lbs. of potatoes—or, to go more into details, three-quarters of a pound of bread with 9 ounces of meat are equal to 3 lbs. of potatoes,—1 lb. of potatoes is equal to 4 lbs. of cabbage and 3 of turnips. But 1 lb. of rice, broad beans, or French beans, is equal to 3 lbs. of potatoes.

In the foregoing statement, two things will be apt to surprise the reader. First, the greater amount of nutriment contained in bread and the farinaceous seeds generally, than in all the other articles of our ordinary food; and second, that though the potato ranks, in regard to the proportion of nutritious matter it affords, far below the foregoing, yet when compared with butcher's meat, there is found to be but 10 per cent. in favor of the latter. The experience of large bodies of men, of even extensive districts of country, is in evidence of the general truth of these conclusions. A large proportion of the most healthy and robust of the English peasantry live mainly upon farinaceous substances; the same is true, to a still greater extent, of the inhabitants of the south of Europe and of different parts of the Asiatic continent. The potato forms, we know, the chief food of the Irish peasantry, than whom, when their constitutions have not been destroyed by causes connected with their political and moral condition, no set of men exhibit a greater amount of health nor more athletic forms. The inhabitants of many parts of Germany enjoy perfect health upon a diet principally of different preparations of rye and barley, while the hardy, shrewd, and enterprising Scot lives on potatoes and oatmeal variously cooked.

Dr. Stark informs us, that upon a diet of 4 lbs. of milk and 30 ounces of bread, his health and strength were fully sustained, while his body increased rapidly in bulk. It was remarked by Brindley, the celebrated canal engineer, that in various works in which he had been engaged where the workmen being paid by the piece each exerted himself to earn as much as possible, men, from the north of Lancashire and Yorkshire, who adhered to their customary diet of oat cake and hasty pudding, with water for their drink, sustained more labor, and made greater wages than others, who lived on bread, cheese, bacon, and beer, the general diet of the laborers of the south.

It has been well said that "the habit of looking on the bright side of things is worth far more than a thousand pounds a year.

Crowded Rooms.

An old English work entitled the "Philosophy of Medicine" relates the following anecdote, which we quote with comments by the editor of an excellent journal current in the early part of the present century:—

"'A lively young lady who came to Bath, to put herself under the care of Dr. M. Adair, gave a rout, and insisted that the Doctor should be of the party. The room was small, and the company very numerous. He had not been long seated at the card table, before a young gentleman, his partner, fell into a swoon. The doors were immediately thrown open to afford him fresh air, and the sash lifted up, and both the gentleman who swooned and the young lady, Dr. Adair's patient, who were invalids, were much injured by the sudden exposure to a current of cold air. How the rest of the company were affected, says Dr. Adair, I had no opportunity of knowing; but my own feelings and sufferings for many hours after I retired from this oven convinced me of the dangerous consequences of such meetings. On declaring, a few days after to one of my brethren, a man of humor, my resolution of writing a bitter philippic against routs, he archly replied, "Let them alone, Doctor; how could this place otherwise support *twenty-six* physicians!"'

"This fact, says our ingenious correspondent, to whom we are indebted for this article, serves to show, better than a thousand arguments without it, the danger of injury from confined air in close apartments. Hence we see that when we invite our friends to enjoy with us the pleasures of the social circle, we may incautiously be the means of rendering both them and ourselves miserable by the poison of a corrupted atmosphere. Besides, how often do we find hundreds and thousands of individuals occupying a room with closed doors and windows for an hour or two together! Much of the yawning, and dullness, and inattention, of religious assemblies is often produced by similar causes, though usually ascribed to a different origin. Crowded assemblies would do well to recollect that they are rendering the atmosphere absolutely poisonous, at the rate of at least a gallon a minute, or a hogshead an hour, to an individual; and they are making it more or less impure and unwholesome with every breath. This happens, too, when the atmosphere is the most pure and dense. In hot weather, as the air is highly rarefied and other causes of impurity exist in greater abundance, it is poisoned at

a much more rapid rate than in other circumstances; and this should remind us of the necessity of a stricter attention to ventilation.

"Our unenlightened readers may be edified by the following—

"RECIPE FOR A ROUT.

"'Take all the ladies and gentlemen you can collect, and put them into a room with a slow fire. Stew them well. Have ready twelve packs of cards, a piano-forte, a handful of prints or drawings, and put them in from time to time. As the mixture thickens, sweeten it with politesse and season with wit, if you have any; if not, flattery will do, and is very cheap. When all have stewed well an hour, add some ices, jellies, cakes, lemonade, and wines; the more of these ingredients you put in, the more substantial will your rout be. Fill your room quite full, and let the scum run off!'"

Egyptian Maniacs.

THE insane in Egypt are treated either as beasts of prey, or as saints—holy persons. Maniacs who have fits of raving, accompanied with violence in gestures and attempts to injure those around them, are chained, conducted to Cairo, and placed in a general depot, in which they are suffered to remain herded together without any attempts being made to preserve the least degree of cleanliness in the place or in their persons. They eat, sleep, and spend all their time in the same apartment; the air of which, of course, becomes insufferably offensive. The only remedy used in the treatment of insanity is a broth made of serpents and administered at every new moon to the afflicted.

As to the insane who are inoffensive, or comparatively so, that is, those who do not by their conduct endanger the lives and safety of the people, they are allowed to roam about entirely free. So far indeed from being molested, they are generally treated with signal distinction. They pass throughout Egypt for saints. It is sufficient even for a person to be rather unreasonable or somewhat original in order to obtain this title. We, in this country, are not quite so obliging—the crowd with us are content to invest a man who utters incoherencies, and goes about promising to cure all diseases by a process peculiar and known only to himself, with the character of a wonderful doctor. This variety of insanity—a true monomania—enlists in the United States very general admiration and respect; and its incongruities are certified to as so many miracles, by professors of law, physic, and divinity. A present miracle! they cry; and although nobody can see it but themselves, the world good-naturedly takes their hallucinations as evidences, to show that insanity is wisdom, and impudence noble disinterestedness.

The following anecdote is related by M. Haimont, as a fact coming under the immediate notice of the narrator:—

"Last winter during the month of the Ramadan I was at the divan of the governor of Rosetta: when there, a 'saint' was brought in on the shoulders of a man who said that an Arab had given a blow with his stick to the saint, and that he had met with this latter bemoaning his treatment in the bazar. The governor immediately issued an order to dispatch two soldiers in quest of the person who had given the blow; and whilst his order was being executed, he, a man of sixty years of age, had the saint brought up, and overwhelmed him with caresses, gave him sweetmeats, sugar-plums, etc., and even went so far as to kiss his hands. The poor Arab who had been so unfortunate as to strike the crazy body was soon brought in with his arms tied behind him. He was asked why he had struck this worthy saint, and without waiting for an answer he was thrown down and ordered to receive lashes until the saint should intercede for him. About a hundred lashes having been given and the saint not seeming in any great hurry to ask for his forgiveness, I could not, says M. Haimont, bear it any longer, and I obtained pardon for the poor sufferer, who was obliged to go and kiss the hands and feet of the person who had just before been lashing him."

"There is another of these itinerant maniacs at Cairo, whose reputation is prodigious. He is an exception to the usual treatment of this class; since, though subject to violent fits of anger and madness, during which he throws whatever comes into his hands at the passers-by, he is still allowed to go at large. One day when I passed near his habitual haunt he threw a stone at me, which very happily only grazed my clothes. This man is forty years of age, strong and well made. He has the reputation of performing many miracles; and though covered with filth and a disgusting eruption of the skin, he is caressed by the women."—*Journal of Health.*

THERE are far more who die of selfishness and idleness than of overwork; for where men break down by overwork it is generally from not taking care to order their lives and obey the physical laws of health.

LITERARY MISCELLANY.

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

NOT LOST.

THE look of sympathy, the gentle word,
Spoken so low that only angels heard;
The secret art of pure self-sacrifice,
Unseen by men, but marked by angel's eyes;
These are not lost.

The sacred music of a tender strain,
Wrung from a poet's heart by grief and pain,
And chanted timidly with doubt and fear
To busy crowds who scarcely pause to hear;
It is not lost.

The silent tears that fall at dead of night
Over soiled robes which once were pure and white;
The prayers that rise like incense from the soul,
Longing for Christ to make it clean and whole;
These are not lost.

The kindly plans devised for others' good,
So seldom guessed, so little understood;
The quiet, steadfast love that strove to win
Some wanderer from the woeful ways of sin;
These are not lost.

Not lost, O Lord, for in thy city bright
Our eyes shall see the past by clearer light;
And things long hidden from our gaze below,
Thou wilt reveal, and we shall surely know
They were not lost.

Washing Day.

"OH, dear me! what shall we do?" said Mary Lennox. "It's just exactly like those working people, to go and fall ill just when we need them most. And every napkin in the wash, and not enough table linen to last two weeks. You must be a very poor manager, grandma, not to have more of such things!"

Old Mrs. Lennox sighed as she rubbed the glasses of her spectacles.

"My dear," said she, "I should have had more if I could have afforded them. But times are hard, and—"

"Yes, I've heard all that before," said Mary, irreverently. "But the question is, grandma, what shall we do about the washing, now that Katrina cannot come?"

Mrs. Lennox heaved another sigh. She was old and rheumatic, and the great piled-up basket of clothes seemed a terrific bugbear before her eyes.

"I'm sure I don't know," said she. "But if you girls will help a little about the dinner, I will try and see what I can do. It must be got out, I suppose, and—"

But here a slight, dark-eyed girl, with a clear, olive complexion, and wavy black hair growing low on her forehead, turned from the table, where she was rinsing china.

"You will do nothing of the kind, grandma," said she, as resolutely as if she had been seventy instead of seventeen. "You attempt a day's washing, at your age!"

"But my dear," said grandma Lennox, feebly, "who will do it?"

"I will," said the dark-eyed lassie.

"Georgie, I'm surprised at you!" said Mary. "Why, you never did such a thing in your life!"

"That's no reason I never should."

"But Georgie—if any one should see you!"

"We don't generally receive company in the kitchen," said Georgie Lennox. "But if any one should come in—"

"Well?"

"If they like my occupation, I shall be very much pleased; if they do not they are quite at liberty to take the other way!"

And Miss Lennox tied a prodigious crash apron around her, rolled up her sleeves, and resolutely took her stand in front of the wash bench.

"It seems too bad, my dear, with those little white hands of yours," said old Mrs. Lennox, irresolutely.

"Oh, my hands!" laughed Georgie. "What are they good for, if not to make themselves useful?"

Mary drew herself disdainfully up.

"Well," said she, "I never yet stooped to such a degradation as that!"

"It would be a great deal worse degradation to stand by and let my rheumatic old grandmother do the washing," observed Georgie, with philosophy, as she plunged her hands into the snowy mass of suds.

Old Mrs. Lennox had been left with a picturesque farm-house on the edge of Sidonia Lake, and nothing else. And so old Mrs. Lennox bethought herself to eke out her slender means by the reception of summer boarders. And in September, when her two granddaughters obtained their fortnight's leave of absence from the millinery establishment in Troy, where they earned their daily bread, they came home for a breath of fresh mountain air, and helped grandma Lennox with her boarders. For there was no girl at

the farm-house, and no outside assistance called in except as German Katrina came once a week to wash and scrub.

"It's drudgery," sighed Mary, who was tall and slender, with a fair complexion, dull-blue eyes, and a Byronic dissatisfaction with her lot in life.

"It's fun!" said Georgie, who had no such exalted aspirations, and liked to make custards, wash china, and decorate the tea-table with flowers.

"You'll hang out these clothes for me, Mary, won't you," said Georgie, as she flung the last red-bordered towel on the top of the clothes-basket, "while I wash the pillow-cases?"

"Indeed I shall not," said her sister. "With the Miss Pooleys playing croquet in plain sight! Never."

"Then I must do it myself," said Georgie, with a little shrug of the shoulders. "And—"

But just as she spoke there came a tap at the kitchen door.

"Come in!" cried Georgie, valiantly, while her sister, with burning cheeks, endeavored to hide herself and her occupation of peeling onions behind the big roller-towel.

And Mr. Raymond Abbott "walked in" accordingly.

"I beg your pardon, Miss Georgie," said he, rather blandly. "I did n't know I should disturb you."

"Oh, you're not disturbing me at all," said Georgie, serenely, resting one dimple-dotted, rosy elbow on the washboard, and looking at him like a practicalized copy of one of Guido's angels, out of a cloud of soapy steam.

"But," he went on, "I was going to ask one of the servants for a basket to bring fish home in."

"I will get one for you with pleasure," said Georgie.

And as she turned to the dresser, her sister answered the puzzled expression of Mr. Abbott's face.

"You are surprised to see Georgie doing that?" said she, with a gesture toward the plebeian tub. "And I do n't wonder. But its only for a frolic—a wager. Girls will do such things, you know!"

But Georgie had heard the last words, and turned around with crimsoned cheek and sparkling eyes.

"It is not a frolic," said she. "And it's not a wager. It's serious, sober earnest. I am doing the washing because Katrina has sprained her ankle, and there's no one else but grandma to do it."

"Indeed," said Abbott. "And can't I help you?"

"Yes," Georgie promptly made answer. "You can carry that basket of clothes out to the bleaching ground for me."

"Georgie!" exclaimed her sister as Mr. Abbott cheerily shouldered the load and strode away in the direction indicated by Georgie's pointing finger.

"He asked me," said Georgie. "I should n't have asked him."

"Judge Abbott's son!" groaned Mary. "The richest man in Ballston! He'll never ask you to go out rowing on the lake with him again."

But the re-appearance of the gentleman in question put a stop to the discussion.

"Miss Georgie," said he, "I would have hoisted them upon the riggings for you, but the wind takes 'em off so."

"That's because you needed the clothes-pins," said Georgie, handing them to him with alacrity.

"Could n't you come and help?" said Mr. Abbott, wistfully. "Two can manage so much better than one."

"Oh, I'll come and help," said Georgie, "and be glad to get my clothes out drying."

She tied on her small gingham sun-bonnet, and ran out into the yellow September sunshine, while Mary burst out crying with mingled vexation and anger.

"I shall never get over the disgrace of it in the world," she said—"never, never! Georgie has no dignity—no proper pride! No; do n't speak to me, grandma, or I shall say something dreadful! I declare I've a mind never to own her as a sister again!"

* * * * * * * *

"Have you finished the washing?" said Mr. Raymond Abbott.

"Yes, I've finished it," said Georgie Lennox. "But I should n't like to earn my living as a laundress. It's a very tiresome business."

Georgie was "cooling off," under the shadow of the frost grape-vines in the woods, with a book in her hand, and the curly locks blown back from her pretty Spanish forehead.

Mr. Abbott looked admiringly down on her. All his life long, his experience had lain among the smiling, artificial dolls of conventional society. He had admired Georgie Lennox the first time he had ever seen her; but that day's experience of her frank, true nature had given depth and earnestness to the feeling.

"Miss Lennox," said he, "do you know what I have been thinking of since we hung out those towels and table-cloths together?"

"Have n't the least idea," said unconscious Georgie, fanning herself with two grape-leaves, pinned together by a thorn.

"I have been thinking," said he, "that I should like my wife to be just such a woman as you are."

"A washerwoman?" said Georgie, trying to laugh off her blushes. "I am only a working girl, and very poor."

But that was just the kind of a girl that Raymond Abbott desired for a wife, a young woman who was prepared to meet emergencies, and could accommodate herself to circumstances; and he never regretted his choice after Georgie became Mrs. Abbott.

Girls, don't be afraid to have your young gentlemen friends know that you are not ashamed to work. The times demand economy; and there are not more than half a dozen young men in America who can afford to support a wife simply as an ornament, a pretty piece of furniture.

Table Forks.

THE *Scientific American* has collected some curious facts concerning the table fork which may interest our readers. We often refer to the Chinese mode of eating with "chopsticks" in a somewhat contemptuous manner, intimating that they must be very untidy in their eating; but the history of table customs shows very clearly that their habits in this regard are far superior to those of our own ancestors two or three hundred years ago.

At that time, even in the best society, forks were unknown, except among the Italians, who appear to have had them in general use considerably earlier than any other European nation, and are believed to be the inventors, or rather the originators, of the custom of using forks at the table. Forks, however, had long been used for raising meats out of pots or cooking vessels by the Greeks and Romans, and the use of forks for lifting the meat from the seething pots is recorded in the Bible. The Egyptian priests, also, in presenting offerings to the gods, used forks made of bronze, two of which, dug up at Sakkarah, are in the Abbott collection. None of these people, however, although familiar with the use of the fork in this manner, had any idea of using the fork at the table. The mode of serving meat varies somewhat in different nations. In some countries the head of the house took the joint in one hand, and, with a knife held in the other, severed the meat into suitable pieces for each person. In other cases the joint was passed from hand to hand, each person cutting off sufficient for himself with his own knife, and then passing it to his neighbor, each cutting off such part as suited him. The portion thus cut off was afterward divided into smaller pieces suitable for eating, and conveyed to the mouth by the fingers of the hand unoccupied by the knife.

In many parts of Spain, to this day, table forks are unknown articles. In many taverns in other parts of Europe, knives are not placed on the table, because it is expected that each traveler is provided with his own; but as few persons will now eat without forks, landlords are obliged to furnish these, together with plates and spoons. It is curious that although the use of forks has not yet spread all over Europe, yet the savage Feejee Islanders have long had table forks in use. At a time when almost all of Northern Europe was destitute of the article, these people, the most cruel and most ingenious of all the natives of Polynesia, used forks in conveying to their mouths dainty morsels of *puakabalava* (long pig), as they called cooked man.

None of the sovereigns of England had forks till the reign of Henry VIII., all, high and low, using their fingers. Queen Elizabeth had several forks presented to her, and although she was seen to use them on state occasions it is doubted if she used them ordinarily.

Voltaire states that table forks were first used by the Lombards in the fourteenth century, and Martins says that they were in common use in Italy in the fifteenth century. Coryat, in his "Crudities," published in 1611, states that he observed a custom in all Italian cities through which he passed that he had seen nowhere else in all his travels. "The Italians, and also most strangers that are cormorant in Italy, doe alwaies at their meales vse a little fork when they cut their meat." Heylin, in his "Cosmograph" (1662), says, "The use of silver forks, which is by some of our spruce gallants taken up of late, came from China into Italy, and thence into England." Another writer states that at the period of the revolution (1688) few English noblemen had more than a dozen forks of silver, along with a few of iron or steel. But after this, steel forks became an article of manufacture at Sheffield, and they came into general use, having, however, only two prongs, and it was only in later times that the three-pronged forks were used. These were originally forged and filed to shape slowly by hand; but in the present mode of manufacture, after the tang, shoulder, and shank are formed, a portion is flattened for the prongs, which is then struck up into form by a swage drop, leaving only a thin film between the tines, which is cleared away by the file. These processes are followed by hardening, tempering, grinding, and polishing, and securing the handles.

Although silver forks have long been in use to some extent, it was not until of late years that their use became in anywise common, as very few, even among the wealthy, used them until about fifty or sixty years ago, and the steel ones are still very largely used among the poor.

Language of Animals.

In comparison with the human voice, that of animals seems poor indeed. The barking of the dog, the mewing of the cat, the bleating of sheep, cannot be called language, in the proper sense. Yet the larynx of these creatures is on the same plan as that of man. Among monkeys the resemblance is perfect. To all appearance the impossibility of speaking is due to the formation of the lips and tongue. In 1715 Leibnitz announced to the French Academy that he had met with a common peasant's dog that could repeat thirty words after its master. In spite of such an authority, we must always say when we most admire the intelligence of this faithful companion, "He only wants words." So well endowed with memory, affection, and intelligence, he can only express his joy by sharp, short expirations of air through the glottis. Howling is a prolonged note in the pharynx, excited by deep grief or pain. Yet dogs in common with many other animals can communicate with each other in a marvelous manner when they wish to organize an expedition. A dead bullock was lying in a waste far from all habitations, when a solitary dog, attracted by the smell, came and fed upon it; immediately he returned to the village and called together his acquaintances. In less than an hour the bones were picked clean by the troop.

Opportunities for studying the language of wild animals are rare: they fly from man, and when in captivity they become nearly silent, uttering only a few cries or murmurs. Travelers have sometimes been able to watch the graceful movements of the smaller African apes. Living in the branches of trees, they descend with great prudence. An old male, who is the chief, climbs to the top and looks all around; if satisfied, he utters guttural sounds to tranquilize his band; but, if he perceive danger, there is a special cry, an advertisement which does not deceive, and immediately they all disperse. On one occasion a naturalist watched a solitary monkey as he discovered an orange-tree laden with fruit. Without returning, he uttered short cries; his companions understood the signal, and in a moment they were collected under the tree, only too happy to share its beautiful fruit. Some kinds possess a curious appendage, a sort of aërial pouch, which opens into the interior of the larynx and makes a tremendous sound. These howling apes, also called Stentors, inhabit the deepest forests of the New World; and their cries, according to Humboldt, may be heard at the distance of one or two miles.

If it be ever possible to observe the play of the larynx of animals during the emission of sounds, the subject will be a very curious one. The difficulty seems almost insurmountable, as their good-will must be enlisted; yet M. Mandl, full of confidence in his use of the laryngoscope, does not despair. After man, among animated Nature, the birds occupy the highest rank in Nature's concerts; they make the woods, the gardens, and the fields, resound with their merry warbles. Cuvier discovered the exact place from which their note issues. They possess a double larynx, the one creating the sounds, the other resounding them: naturalists call the apparatus a drum. Thus two lips form the vocal cords, which are stretched or relaxed by a very complicated action of the muscles. This accounts for the immense variety of sounds among birds, replying to the diversity in the structure of the larynx.

The greater number of small birds have cries of joy or fear, appeals for help, cries of war. All these explosions of voice borrow the sounds of vowels and consonants, and show how easy and natural is articulation among them. Those species which are distinguished as song-birds have a very complicated vocal apparatus. For the quality of tone, power, brilliancy, and sweetness, the nightingale stands unrivaled; yet it does not acquire this talent without long practice, the young ones being generally mediocre. The parrots which live in large numbers under the brightest suns, have a love for chattering which captivity does not lessen. Attentive to every voice and noise, they imitate them with extraordinary facility; and the phenomenon of their articulating words is still unexplained. It is supposed that there is a peculiar activity in the upper larynx. As a rule, they attach no meaning to what they say; but there are exceptions. When very intelligent and well instructed, these birds—such as Mr. Truefitt's late parrot, an account of which appeared in this *Journal* in 1874—can give a suitable answer to certain questions.—*Chamber's Journal.*

—There are no better cosmetics than temperance, purity, modesty and humility.

Large Salaries.—Some Americans think that the $50,000 a year received by the President of the United States for his services is an extravagant sum; but a comparison of the salary of Mr. Hayes with that of some of the emperors, kings, and chief magistrates of other nations makes the amount appear quite a paltry stipend. According to the "Year Book" of Frederick Newton, the salaries of some of the principal rulers of the world are as follows:—

Francis Joseph, Emperor of Austria, receives $4,650,000; King of Belgium, $660,000; King of Denmark, $227,775; his oldest son receives an annual allowance of $33,333 in addition. Marshal McMahon, President of the French Republic, receives $180,000. Napoleon III. had an annual allowance of $7,800,000, yet left his office $16,000,000 in debt. William I. has a salary of $3,079,760; the King of Bavaria receives $1,378,000; Queen Victoria annually receives $2,225,000; William III., King of the Netherlands, has an annual salary or "civil list" of $375,000, and is the richest sovereign in Europe. Alexander II., of Russia, receives $10,000,000 a year; Abdul Aziz, Sultan of Turkey, received a salary which enabled him to spend $22,500,000 a year. The President of the Swiss Republic has a salary of $3,000, and, it is said, governs well.

A New Cave Discovered in Kentucky.

ANOTHER wonderful cave has recently been discovered near Glasgow Junction, Ky. It has already been explored for a distance of twenty-three miles in one direction, called the long route, and sixteen miles in another direction, called the short route. The avenues are very wide; a span of horses can easily be driven through for a distance of eleven miles. Three rivers, wide and very deep, are encountered on the long route. One of them is navigable for fourteen miles, until the passage becomes too narrow to admit of a boat. This forms the third or river route, which has to be explored in a boat.

The cave is wonderful beyond description, and far surpasses in grandeur the Mammoth or any cave ever before discovered. Several mummified remains have been discovered in one of the large rooms. They were reposing in stone coffins, rudely constructed, and from appearances may have been in this cave for centuries. They present every appearance of the Egyptian mummies.

Great excitement prevails over this very important discovery. The owner of the cave, Thomas Kelley, is, or rather was a few days ago, a very poor man, struggling to make a payment on a farm of twenty-four acres, upon which, by mere accident, the entrance to this wonderful cave was discovered. He obtained about $400 for the mummies, and is now offered $10,000 cash for the cave.

The entrance to the cave is within the town limits, and is only about two minutes' walk from the depot, which makes it very valuable indeed, as visitors will not be compelled to travel five miles in a stage-coach, as they do if desirous of visiting the Mammoth Cave, which is five miles from this town. In fact all the celebrated caves of Kentucky are in this immediate vicinity. The surface is very much broken, full of great elevations and depressions, with everything to indicate that there were volcanic eruptions or violent upheavals of the earth at some period.

The newly discovered cave has been named the Grand Crystal Cave, and is as beautiful as its name implies. Ladders and bridges are being constructed, and a capitalist of the town announces his intention of having a small steamboat constructed expressly for the purpose of navigating its wonderful rivers.—*Cincinnati Commercial.*

"There Is Dust on your Glasses."—I do n't often put on glasses to examine Katy's work, but one morning not long since I did so upon entering a room she had been sweeping.

"Did you forget to open the windows when you swept, Katy?" I inquired; "this room is very dusty."

"I think there is dust on your eye-glasses, ma'am," she said modestly.

And sure enough the eye-glasses were at fault, and not Katy. I rubbed them off, and everything looked bright and clean, the carpet like new, and Katy's face said, "I'm glad it was the glasses, and not me this time." This has taught me a good lesson, I said to myself upon leaving the room, and one I shall remember through life.

That evening Katy came to me with some kitchen trouble. The cook had done so and so, and had said so and so. When her story was finished, I said, smiling, "There is dust on your glasses, Katy; rub them off, you will see better."

She understood me, and left the room.

I told the incident to the children, and it is quite common to hear them say to each other, "Oh, there is dust on your glasses."

Sometimes I am referred to: "Mamma,

Harry has dust on his glasses; can't he rub them off?"

When I hear a person criticising another, condemning perhaps a course of action he knows nothing about, drawing inferences prejudicial to the person or persons, I think right away, "There's dust on your glasses; rub it off."

The truth is, everybody wears these very same glasses, only the dust is a little thicker on some than on others, and needs harder rubbing to get it off.

I said this to John one day, some little matter coming up that called forth the remark. "There are some people I wish would begin to rub, then," said he. "There are Mr. So and So, and Mrs. So and So, they are always ready to pick at some one, to hint; I don't know, I don't like them."

"I think my son John has a wee bit on his glasses just now."

He laughed, and asked, "What is a body to do?"

"Keep your own well rubbed up, and you will not know whether others need it or not."

"I will," he replied.

I think, as a family, we are all profiting by that little incident, and through life will never forget the meaning of—"There is dust on your glasses."—*N. Y. Observer.*

Age of the Cedars of Lebanon.—So much has been said about the great antiquity of the cedars of Lebanon and their near relatives the "big trees" of California, that all are more or less interested in the subject. Bishop Ferrette, of Cambridge, questioning the reputed antiquity of these trees, communicates to a scientific journal the result of his observations on the subject, as follows:—

"I visited the cedars for the first time in the summer of 1860, and was struck by the similarity of cedars to fir trees. A cedar is in fact nothing but a big fir tree, of which there are many species, all closely related to each other. Having been born in a fir tree country and knowing that those trees are not generally among those which take many years to attain their full size, I conceived some doubts as to any of the cedars, even the most enormous, being as old as Solomon's time.

"But the next year I was able to set that question at rest, to my satisfaction at least, for I must confess that I am not in any special sense a botanist. I revisited the cedars in 1861, and found one of the five or six principal giants, at whose stupendous proportions I had wondered the year before, lying on the ground, having been rooted out by the snows and storms of the winter. Monks were busy sawing it into pieces, and had already severed from the trunk one of the two nearly equal stems into which it branched at about ten, certainly not more than twenty, feet from the ground. I counted the rings at that place, and to my surprise they were only two hundred or thereabouts.

"I confess it was difficult for me to believe that that enormous branch was only two hundred years old; and if it was only that age, the whole tree could not have been much older, for fir trees, so far as I am aware, never grow new branches below older ones; and when that branch was first projected, at twenty feet or less from the ground, the tree could not have been much more than twenty years old."

Interesting Dates.—It is interesting to note by comparison of the following facts how large a number of the most important factors in the advancement of modern civilization were developed in scarcely more than a single century:—

"Post-offices were first established in 1464; printed musical notes were first used in 1473; watches were first constructed in 1476; America was discovered in 1492; the first printing-press was set up at Copenhagen in 1493; Copernicus announced his discovery of the true system of the universe in 1517; Albert Durer gave the world a prophecy of future engraving in 1527; Jergens set the spinning-wheel in motion in 1530, the germ of all the busy wheels and looms of ten thousand future factories; modern needles first came into use in 1545; the first knives were used in England, and the first wheeled carriages in France, in 1559; the first newspaper was published in England in 1588; telescopes were invented in 1590; Spencer, Shakespeare, Bacon, Kepler, and Tycho Brahe were contemporaries in 1590."

—That good old man had learned a sound philosophy, who said: "There are two things we should never fret about; one is what we can't help, and the other is what we can." This is a lesson well worth learning. Fretting is the friction of the soul. It irritates, disorganizes and wears out delicate and beautiful machinery within. It is a vampire that sucks the blood out of the heart. It is an acid that sours all the sweet juices of the tree of life. It repels love and sympathy and friendship. It does no good at all, and works only evil. Shun the evil thing.—*Sel.*

Popular Science.

—The average length of life of the equine race has recently been greatly overreached by a Rochester horse, which died at the ripe age of forty-five years and six months.

—A plan recently proposed for the prevention of suicide is the enactment of a law granting their bodies to the medical colleges for purposes of dissection.

—Prof. Maxwell, of London, expects that the time will come when physicians in London will examine patients by auscultation in any part of the kingdom by means of the microphone and the telephone.

—Scientists are now able to study accurately changes which occur in the sun in spaces no larger than ten miles square, although our luminary is more than 92,000,000 miles distant.

—Pompeii, the long buried city, has been so far exhumed that an announcement has been made that the theater of the city, after having been closed for 1,800 years, will be re-opened with a modern play.

—Mr. Wood Mason, a naturalist, has recently discovered that scorpions are possessed of a musical apparatus. It would be interesting, if this be true, to listen to the warblings of the inmates of a nest of these venomous reptiles.

—A London carriage-maker has taken a hint from the shape of the human clavicle, which is a wonderful adaptation of form to afford the greatest possible strength with the smallest quantity of material, and has constructed what he calls a "clavicular wheel," in which each spoke is of the exact shape of the human clavicle, not omitting even the grooves for the blood-vessels.

—Taking his inspiration from the telephone, a facetious magazine writer proposes to invent an instrument by means of which a person may be able to participate in all the gustatorial enjoyment of a feast without harming his stomach with the viands, by simply putting the various soups, entrées, wines, etc., into a proper receptacle connected with a battery, and then holding the battery wires in his mouth. A great desideratum for dyspeptics.

—A curious scientist has discovered that a certain species of spider is a deadly foe to bed-bugs, catching and killing them as dexterously as other spiders do the common house-fly. The conclusion he draws is that housekeepers who are unable to defend themselves successfully against the little fiend which haunts the bedstead had better make friends with the spiders, at least with the particular variety that relishes bed-bugs as a regular diet.

Calculating Machine.—A new calculating machine has been invented by an English professor, by means of which the most complicated problems can be solved by simply turning a crank.

Smell in Insects.—An eminent French naturalist has proven the existence of the olfactory sense in the weevil by covering the insect entirely with wax, with the exception of the tips of its long antennæ. Upon presenting turpentine to it, the insect was much agitated; when the tips of the antennæ only were covered, the insect showed no knowledge of the presence of the turpentine.

Protection of Fruit by Ants. — An Italian journal says that the cultivators of Mantua are in the habit of forming a colony of ants at the foot of each olive tree in the spring, having found that these insects do not injure either the tree or the sound fruit, and that they effectually protect the tree and fruit from the ravages of other insects, such as caterpillars, canker-worms, etc. Perhaps American farmers may find this a useful hint.

Largest Plant Known.—The gigantic baobab trees and the "big trees" of California have been regarded as the largest specimens of vegetable growth afforded by that class of the organic kingdom; but Prof. Reinsch has discovered a marine plant in comparison with which the largest of California's "big trees," appears a dwarfish shrub.

This plant is known as the *Macro-cystis pyrifera.* It has been found by exact measurement, in some cases, to cover three square miles of the ocean bed. The stem from which this great labyrinth of foliage and branching stems was produced was eight feet in diameter. The plant is found in the North Pacific Ocean, and belongs to a class, some species of which are so small as to require a microscope to render them visible.

Electric Awakener. — This apparatus is so arranged that by attaching it to the two wrists upon going to sleep, a person will receive a shock of any desired severity at the hour at which he wishes to be awakened; he is sure to get up.

A Useful Disinfectant.—It has been long known that one of the most useful disinfectants is ozone. This agent is readily produced by proper apparatus, but the difficulty of manufacturing it by simple means has prevented its general introduction as a disinfecting agent. An Australian physician, taking advantage of the well-known property of volatile oils of generating this agent, makes a mixture consisting of one part of rectified oil of turpentine, with seven of benzine, and a few drops of oil of verbena. This compound converts the oxygen of the air into ozone, and also produces peroxide of hydrogen, both of which agents are among the most valuable of disinfectants.

The advantages of this preparation are that it is cheap, lasting, easy of application, and will not injure any kind of fabric to which it is applied. It may be applied with a brush or sponge. The odor is not disagreeable.

The Length of Roots. — Few persons have any adequate idea of the extent of the underground growth of plants. Some interesting facts are stated in the following paragraph from a scientific journal:—

"The tap-root of a common red clover plant has been traced to the perpendicular depth of nearly five feet. Indian corn sends its roots in some cases to the depth of seven feet, onions to three feet, lucern to fifteen feet. Louis Walkhoff traced the roots of a beet plant downward four feet, where they entered a drain pipe. Prof. Schubart found the roots of rye, beans, and garden peas to extend about four feet downward; of winter wheat, seven feet in a light subsoil, and forty-seven days after planting. The roots of clover one year old were three and a half feet long; those of two-year-old plants four inches longer."

Chinese Rice Paper.—The delicate, translucent material known by this name was first brought to this country many years ago, and then acquired the name it still bears for want of a better one, although properly it is not a paper, and it does not contain a particle of rice, or anything at all resembling it.

"It is, in fact, made by slicing the pith of a plant and pressing it into thin sheets; and if called 'paper' at all, should be styled pith paper rather than rice paper. The tree which produces the pith is allied to our American wild sarsaparilla (*Aralia*), and was formerly called *Aralia papyrifera*, but is now known botanically as *Fatsia papyrifera*, the specific name being given in allusion to the use made of the pith. The tree, which rarely attains a height of more than 20 feet, is a native of the Province of Yunnan and the Island of Formosa, where it is called by the Chinese name of *tung tsao.* The flowers, which are small and greenish, are produced in numerous pendulous panicles, one to three feet long, at the end of the branches. The mature leaves, supported on long petioles, are round-heart-shaped, five to seven lobed, often a foot long, and soft and flaccid. The vigorous stems contain a snowy white pith, an inch and a half in diameter, for which the tree is sought after and cultivated.

This pith forms an important item in the domestic trade of China, and is not only used in making the sheets which are familiar to us when decorated with paintings, but is also largely employed in the manufacture of toys and artificial flowers. The operation of making the pith paper is not unlike that of cutting corks; the pith, after being divested of its exterior covering of woody matter, is soaked in water, and pressed into a uniform cylinder by a machine; it is afterward placed on a frame, where it lies firmly, and the workman, by means of a long, thin, very sharp knife, pares the cylinder from the circumference toward the center, and along its entire length, into a sheet. The sheet thus produced is spread out and flattened under weights until dry, or pressed out by means of an iron; the little holes or other imperfections being neatly mended with bits of mica glued underneath."

THE

HEALTH REFORMER

BATTLE CREEK, MICH., DECEMBER, 1878.

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

The Old and the New.

WITH this number closes the thirteenth volume of this journal. During the time which we have been connected with the journal, now nearly six years, we have endeavored to do our part toward making it useful, instructive, interesting, and progressive. We have never yet been able to attain our ideal of a journal devoted to the grand themes announced on our cover, and we may never do so; but we shall certainly continue to make earnest efforts for continual improvement.

During the few years past we have been constantly overcrowded with other labors in addition to editorial work, which were, indeed, sufficient to engross our whole time. This we have much regretted, as it has prevented us from giving to the journal that attention which we would like to give, and which its importance demands. We have also labored under many embarrassments from meager facilities; but for the future we hope that some of the obstacles are removed; and we shall start upon our labors on the next volume with more enthusiasm for the grand, noble, and philanthropic work of sanitary reform, and with brighter prospects of a more liberal measure of success, than ever before.

Perhaps some of the old patrons of the journal will observe with regret the notice of a change of name. It should be explained that this change is made not from any disrespect to the old name, under which the journal has gained the liberal patronage which it enjoys, but to better adapt the journal to the wants of the present time, as will be more fully explained elsewhere. We trust that the old friends who have so long and so nobly supported the journal in its efforts for the good of human kind will still continue their patronage, still aid us by their influence in extending the field of usefulness by a liberal increase of our list of readers during the next two months.

Medical Nonsense.

THE amount of senseless twaddle which has got into the newspapers about the cure of consumption would make a library of very large proportions if collated. Here is the latest, from the *Scientific American*, a paper which professes to expose errors, fallacies, and popular superstitions, though evidently it has been taken in this time:—

"A Minneapolis physician recommends this highly carbonaceous mixture in the treatment of consumption: One half pound finely cut up beefsteak (fresh); one drachm pulverized charcoal; four ounces pulverized sugar; four ounces rye whisky; one pint boiling water. Mix all together, let it stand in a cool place over night, and give from one to two teaspoonfuls, liquid and meat, before each meal. The value of this method of supplying a sufficiency of carbon in a form that may be readily appropriated is obvious."

But to our minds it is not so obvious that carbon supplied in such a form "may be readily appropriated." Any amount of pulverized charcoal taken into the stomach could no more be appropriated than could so much sand. Whisky, it is well known, materially hinders digestion. Meat is food under ordinary circumstances, but after being macerated in whisky and sugar, it would be about as indigestible as sole leather.

Nothing could be more absurd than the supposition that such a combination could in any forcible manner exercise a curative influence in the treatment of that dread disease, consumption. All compounds of this sort are worse than useles as remedies in this disease. The best way to get carbon appro-

priated in consumption or in any other disease is to give the patient a reasonable, digestible diet, and let all sorts of whisky compounds severely alone.

Poisonous Baking Powders.

THE almost universal use of baking powders, which is encouraged by their convenience, has led to their manufacture by irresponsible and dishonest parties. Dr. Henry A. Mott, chemist of the Indian Department, has recently been subjecting to analysis a large number of the baking powders offered in the market, and he finds that at least fifty per cent. of them are adulterated by alum, which is well recognized as a poisonous chemical when taken internally. This fact is so well understood and appreciated in England that a law has been enacted against the use of alum in bread by bakers, with a severe penalty attached. It would be an utter impossibility for these pernicious articles to be sold in that country. The manufacturers would be subjected to a heavy fine, and perhaps imprisoned. It ought to be recognized here as well as abroad that to poison a man's bread, to dangerously adulterate his food, is one of the most heinous crimes that can be committed.

Dr. Mott speaks as follows respecting the injurious effects arising from the use of baking powders containing alum :—

"The injurious powders are composed of alum and bicarbonate of soda, and often contain terra alba (white earth), insoluble phosphate of lime, etc., etc. The effect of alum when taken internally has been shown by Wilmer and others to produce dyspepsia, constipation, vomiting, griping, and even inflammation of the gastro-enteric mucous membrane, as it is a powerful astringent acting chemically on the tissues. These serious effects will not, of course, be brought about immediately from the small quantity of alum used in one loaf of bread; but it is certain that persons continuing to eat bread containing alum will, in time, suffer from its evil effects, and the weaker the constitution the sooner will the effects be noticed.

"Duma speaks to the same effect when he says, 'It is to be feared that this salt exerts a deadly action by its daily introduction into the stomach, especially in persons of a weak constitution.' And other great authorities, such as Carpenter, Dundas, Thompson, Gibbon, and Normandy, all agree that the continued use of bread containing alum will bring about dyspepsia and other troubles; and such was the opinion of the late Baron Liebig. The celebrated Pereira considered 'that whatever may have been the effect in the case of healthy persons, sick persons did really suffer in that way.' In the *Lancet* is mentioned a case in whom dangerous gastro-enteritis was apparently induced by a single dose containing between ten to twenty grains of burnt alum. Dr. Parkes, in his work on Hygiene, states that from eight to forty grains of alum, and probably more, have been found in a single loaf of bread."

The most largely adulterated specimens examined by Dr. Mott were the following: "Dooley's Standard Baking Powder;" "Patapsco Baking Powder;" "Charm Baking Powder;" and a baking powder manufactured by C. E. Andrews & Co., of Milwaukee, Wis.

We are not greatly in favor of the use of baking powders, since they all contain elements inimical to the highest health of the digestive organs; nevertheless, their use is really much preferable to the old-fashioned plan of using cream of tartar and soda or saleratus, which was almost certain to leave a great excess of alkali in the bread, and to make it almost caustic in quality, as well as disagreeable in taste. The best bread is made without either baking powder or any other chemical agent. During our recent visit to Richmond, Va., we daily ate of the celebrated "Virginia rolls," which are made without either yeast or baking powder, the mixture of flour and water being made light and most palatable by beating the dough with a mallet for some time.

No one should dare to employ a baking powder without first submitting it to a chemist. It would be altogether safer to discard them altogether. It is a mistake to suppose that no harm can be done if the powders are so proportioned as to give a neutral residue. The salts left from the reaction are injurious. The less baking powders are used, the better

American Public Health Association.

ACCORDING to previous notice, this Association convened at Richmond, Va., on Tuesday, Nov. 19, the first meeting being held on the evening of that day. The evening was chiefly occupied in listening to the President's address, and the address of welcome by the Governor of Virginia, which had the ring of true cordiality in it, well calculated to elicit the frequent applause with which the speaker was greeted. The address of President Harris, although containing a large amount of useful instruction and wise advice, was very verbose, and being rather illy delivered, did not awaken as much enthusiasm as it really deserved. Dr. Harris has done a large amount of most excellent work for the cause of hygiene, and deserves great honor as a man who has devoted himself to this philanthropic work.

The whole four days of the session were devoted to listening to and discussing the voluminous report of the Yellow Fever Commission, appointed by the surgeon-general, Dr. Woodward, at the suggestion of Mrs. Elizabeth Thompson, who has borne the chief expense of the labor of the committee. It seemed to many members that the report was not so thoroughly digested and condensed as it should have been, since it contained so many irrelevant facts. Nevertheless there should be no reflection cast upon the members of the commission, for they have had a very arduous task to perform and a very brief time in which to do their work, which is not yet complete.

The general conclusions arrived at by the special committee appointed for the purpose are embodied in the following propositions reported to the Association :—

"1. Yellow fever of 1878 was a specific disease, not indigenous to or originating during that year spontaneously in the United States, and its appearance in this country was due to a specific cause.

"2. Quarantine established with such rigor and precision as to produce absolute non-intercourse will prevent the importation of the specific cause of yellow fever.

"3. It is the duty of the General Government to aid in the establishment of a practical and proper quarantine by all means in its power.

"4. It is the duty of the General Government to appoint a commission of experts to make a thorough investigation into the causes of yellow fever and the best methods of preventing its introduction into this country, and to make such an appropriation as will permit of the securing the services of the best men, and of the best means for carrying out such investigation.

"5. That it is the duty of the General Government to invite foreign nations to co-operate with it in the establishment of uniform and effective international quarantine regulations.

"6. That whatever may be the practical value of quarantine, there is no doubt of the importance and value of internal sanitary measures in the prevention or modification of epidemic yellow fever, and that this Association strongly urges upon State and municipal authorities the great amount of responsibility which rests upon them on this account at times when no disease is prevalent or threatening."

Dr. A. N. Bell, editor of the *Sanitarian*, was not satisfied with the importation theory, neither did he agree with those who thought disinfectants of no account. He had tried steaming the hold of ships with excellent results in killing the fever. He was also of the opinion that in cases in which the disease appeared in apparently sanitary sections of cities soil saturation was a cause.

Dr. Sims of Chattanooga gave evidence which disproved the theory offered by some members of the commission that disinfectants were useless. His experience showed that by the judicious use of disinfectants yellow fever may be greatly modified, even in houses where it has already made its appearance.

This meeting of the Association was largely attended, members coming from all parts of the United States. There was a large representation from the South, especially from the large cities which have suffered most. The session was a very profitable one, and we did not in the least regret the trouble taken to attend it. The next meeting is to be held at Nashville, Tenn.

—Notwithstanding the constant complaint of "hard times," 600,000 gallons of liquor

were consumed by the dram drinkers of England and Ireland two years ago, and a still larger quantity was consumed last year.

Getting up a Scare.

A FEW years ago a certain Dr. Knapp, of Mexico, contributed to the New York *Medical Journal* a twenty-five-page article entitled, "Planetary Pestilence," in which he made strenuous efforts to prove that the great cause of plagues, pestilences, and wide-spreading epidemics is the near approach to the sun of the large planets, Jupiter, Saturn, Uranus, and Neptune. All who have ever been at all familiar with the structure of the Solar System will recollect that the orbits of the planets are elliptical; so that at one point in their course about the sun they are farther away than at any other; while at another point, on the opposite side of their orbit, they are nearer than at any other. The near point is called *perihelion*. Jupiter, the largest of the planets, makes a revolution about the sun once in twelve of our years, and so passes through perihelion every twelve years. The perihelion of Saturn occurs once in 30 years; of Uranus, once in 84 years; and of Neptune, once in 164 years. These great planets are all very much larger than the earth, their diameter varying from four to eleven times that of the earth. Jupiter is more than 1400 times the size of this little globe. Its greatest distance from the sun is nearly 500,000,000 miles. In perihelion it is about 45,000,000 miles nearer.

It may happen that the various planets mentioned come into perihelion at the same time. Jupiter and the earth will reach this point in their orbit at the same time once in twelve years; Jupiter and Saturn, once in sixty years. Jupiter, Saturn, and Uranus would coincide in perihelion once in 420 years; while the perihelia of the three would coincide with that of Neptune once in 17,220 years.

It occurred to Dr. Knapp that so rare and remarkable an event as a perihelion, or at least the coincidence of perihelia, ought to be marked by terrestrial occurrences of some sort; and he was not long in observing that several great pestilences had occurred coincidently with the perihelia of some of the planets mentioned. He consequently hastened to apprise the world of his supposed discovery that the ancient notion about the influence of the stars upon mundane things, known as astrology, had a substantial basis. Observing also from astronomical calculations that between the years 1880 and 1885, the perihelia of all four of the great planets will occur at once for the first time within the knowledge of man, the Doctor was much exercised with the idea that our planet is, during the period about to begin, to be subjected to the most serious ordeal of famines, pestilences, earthquakes, tornadoes, and various other atmospheric and telluric disturbances, such as it has never experienced before. If the conjunction in perihelion of two or three planets should produce the dire results witnessed in pestilences in the past, certainly it would seem that the occurrence of four perihelia at once would produce still more terrible effects, as the Doctor prophesies.

At the time of the appearance of the article referred to, an ultra apostle of hygiene first ridiculed and then indorsed it, and in various journals commented and enlarged upon the theory advanced. The Chicago *Times* now takes up the same lugubrious strain, and attempts to frighten people into good behavior by shaking them over a perdition of planetary perihelia. We have no objection to the use of every legitimate means for inducing people to reform; but have serious doubts of the propriety, or utility, in the end, of getting up a great scare over a doubtful theory, since investigation will expose the fallacy, and then a reaction will occur which will leave the people in a worse situation than before.

We have taken some little pains to examine the grounds for this theory, during the five or six years which have elapsed since its first promulgation, and would call attention to the following points, which it seems to us completely demolish the groundwork upon which the theory of an impending catastrophe, in connection with the perihelia of the planets, is based :—

1. The reason assigned for the production of plagues and pestilences by the perihelia of the planets is that on account of their near approach to the sun they rob the earth of a

portion of its usual light and heat, and thus occasion atmospheric disturbances prejudicial to health. The absurdity of this reason will appear from a simple illustration. Suppose two men, in a dark night, to be standing at different distances from a bright light. Let one be ten rods from the light, and the other fifty rods. Now let the one who is farthest away approach a few feet nearer to the light; does the other observer receive any less light than before? Any one will answer, Certainly not. So it is equally true that our earth receives no less light or heat because the other planets receive more during perihelion.

2. If the perihelion of Jupiter so affects our globe as to occasion plagues and pestilences, then there should be a manifestation of this sort whenever the perihelion of this great planet occurs. This is very far from the truth. The first recorded pestilence of note occurred B. C. 767. Since that time there have been, including this, forty visitations of the same sort in different parts of the world, which historians have considered of sufficient importance to be worthy of record. But the perihelion of Jupiter has occurred 220 times within the same period; and only six times has the perihelion of Jupiter and the pestilence or plague occurred at the same time. It must be evident to every one that the doctrine of chances is quite sufficient to account for the six simultaneous occurrences of the perihelion of Jupiter with the pestilence; and the occurrence is simply a coincidence, there being no relation of cause and effect.

The same argument might be used with equal force in relation to the perihelion of the other planets, but it is scarcely necessary to offer further evidence when the proof is complete.

It appears to us to be more philosophical and sensible, and better policy in the long run, to convince people by logical arguments of the importance of observing the laws of God and Nature, than to attempt to frighten them into obedience by baseless and chimerical theories.

—A young lady was recently poisoned by eating an apple picked from a tree in an orchard adjoining a potato field in which Paris green had been used to kill the Colorado beetle. Apples grown in orchards near such fields should be carefully washed or pared before they are eaten, as small quantities of the poison may be carried by the wind, and thus render the fruit poisonous.

Edict of William, "the Testy," against Smoking.

WHEN visiting the National Art Gallery at Washington, our attention was drawn to a very large painting occupying a conspicuous position just in front of the main entrance to the gallery. The picture represented a curious scene which was enacted more than two hundred years ago in the city of New York, then known as New Amsterdam. One side of the picture exhibits an old fashioned building of Dutch style, with a porch at one side, which is designated as the house of the governor, an officer who received his appointment from the king of England and ruled in the province with almost unlimited authority. Before and about the house is congregated a great crowd of people whose countenances betoken their low Dutch nationality, disposed in various attitudes, indicating, to a degree, animal enjoyment and mulish obstinacy; each man is provided with a pipe, and all are puffing away so vigorously that dense clouds of vapory poison roll above their heads and float about the house. All sorts of pipes are represented, as well as all styles of smokers; and, lying about conspicuous in the foreground are dozens of extra pipes and heaps of the noxious weed.

On the porch of the quaint old house appears the governor himself, in a menacing attitude, holding in his left hand a legal document, and with his right brandishing above their heads a short stick resembling a policeman's club, his countenance indicating mingled feelings of anger, mortification, and disgust.

A reference to Irving's Knickerbocker History of New York, referred to at the bottom of the painting, furnishes an explanation of the curious scene described. It appears that the governor of the province, known as "William the Testy," having a great dislike for the filthy weed, and noticing its evil effects upon his subjects, sought to curtail its

use by an edict forbidding smoking, which resulted in the demonstration represented in the picture and thus described in the history referred to :—

"Finally, he [William the Testy] issued an edict prohibiting the smoking of tobacco throughout the New Netherlands [afterward named New York]. . . . The immediate effect of the edict was a popular commotion. A vast multitude, armed with pipes and tobacco boxes, and an immense supply of ammunition, sat themselves down before the governor's house and fell to smoking with tremendous violence. The testy William issued forth like a wrathful spider, demanding the reason of this lawless fumigation. The rioters replied by rolling back in their seats and puffing away with redoubled fury."

Tobacco-using, like liquor-drinking, is a vice which refuses to be controlled. Numerous were the attempts of civil authorities to hinder its introduction, but it survived in spite of all efforts to exterminate it. The most harmful vices are always the most tenacious of life. Legislation is incompetent to cure these evils. Let it do what it is capable of doing; but we must depend on the education of the people for a radical cure.

Use for Warts.—A New York physician, according to the *Medical Record*, has found a use for warts, which he describes as follows :—

"As common warts of the skin are collections of vascular papillæ, admitting of easy separation without injury to their excessively thick layer of well-nourished epidermis, the idea was conceived that, by their use for the purpose of skin-grafting, better and more rapid results would be obtained than when the ordinary skin of less vitality is used. As proof of the theory, a case is cited in which there had been complete destruction of all the skin on the dorsum of the foot, involving to a great extent the deep cellular tissue, and where for several weeks no healing advanced until grafts of freshly removed warts from the patient's hand immediately started little islands of new tissue, which rapidly increased, until they coalesced and met the margins of the border skin, thereby completely covering the foot by firm, protecting integument. . . .

"Warts of the hand can be used with better results than small pieces of normal skin, in skin-grafting, in consequence of being easily separated, uninjured, into numerous cylindrical rods of great vascularity, and containing a large proportion of hypertrophied epithelium, which, when planted in healthy granulating tissue, readily adapt themselves to the new soil, receiving direct nourishment, and quickly growing as starting-points for a new and smooth epithelial covering."

Typhoid Fever and Milk. — We have frequently called attention to the danger of communication of this disease through the medium of milk. If cows take the poisonous germs in their drinking water, they will be certain to appear in the milk, and those who use the milk will be quite certain to take the disease. *A well in a barnyard is a reservoir of disease.* Without much exaggeration, or use of hyperbole, such a well may be said to be "full of dead men's bones," and not only the bones of dead men, but of women and children by scores and hundreds sometimes. Many an epidemic of typhoid fever which has destroyed the "best and brightest" of many families has been traced directly to such a source.

The health officer of Bristol, England, recently called attention to an epidemic of over eighty cases of typhoid fever occurring in forty-three families, which originated in this way. We once ourselves observed an epidemic of sixty cases, many of which we traced to a similar origin.

A man who keeps and uses a well in a barnyard would not endanger his family more, and would imperil his neighbors less, if he should plant a powder magazine under his hearth-stone.

A Mustard Congress.—During the latter part of the great exhibition, Paris has been alive with "Congresses" of various sorts. One of the most curious of these was the mustard congress, for determining the merits of the mustards of various nations exhibiting their products at the exhibition. Twelve ladies were added to the twelve men constituting the congress, it being suggested that women have a nicer appreciation of condiments, since *men's palates are vitiated by*

smoking. Without in any degree approving the idea of a congress for the purpose named, we deem it worth while to notice the reason assigned for deferring to the judgment of ladies respecting the merits of the mustards. We fear, however, that the ladies' tastes will become sadly "vitiated" also if they continue to indulge in such fiery condiments, saying nothing of the "vitiated" stomachs, "vitiated" blood, and "vitiated" complexions sure to result from their use.

Holiday Gormandizing.

THE day after Christmas will be a busy day for the doctors. We expect to have an unusual number of calls on that day; nevertheless, at the risk of losing some business by so doing we cannot let this opportunity pass without giving a fair warning to all who may come within the circle of our influence that if they transgress the laws of health on Christmas, New Years, or other holidays, they will as certainly suffer as though the violation was committed on other days of the year. Nature's laws are never suspended for our convenience. They are always operating. If we transgress, we must suffer. There is no escape from the penalty.

How often have we seen a person suffer for months in consequence of one single imprudent indulgence at the dinner table on a holiday, or at the sumptuous table spread to tempt the guests to commit voluntary suicide at some fashionable evening party. In more than one instance death has been the speedy result of holiday gormandizing.

There are other means of enjoyment far superior and vastly more in accordance with Nature's laws which may be resorted to as a means of celebrating our national days of thanksgiving and recreation. How much better to leave gormandizing for epicures and gluttons! Let sensible people treat their stomachs reasonably on Christmas and New Years as well as on other days. Be temperate in all things at all times.

He Ate until He Burst.—A case in which a man ate until he literally burst is given in a German medical journal. The account is given by a physician who states that "after taking four plates of potato soup, and many (how many is not stated) cups of tea and milk, followed by a large dose of bicarbonate of soda to aid digestion! his stomach swelled enormously, and tore the diaphragm on the right side, causing immediate death."

First Symptom of Consumption. — One of the first symptoms of that most dreadful of diseases, consumption, is increased frequency of breathing. When this symptom is noted, the patient should lose no time in giving his health attention. Out-of-door exercise, expanding the lungs, taking deep and full respirations, practicing elocutionary exercises, and every invigorating measure should be at once attended to with energy and perseverance. Such a course would annually save thousands, who die from sheer neglect.

Rest vs. Stimulants. — *The Doctor*, a medical journal, says that the other day when an imbibing patient, wishing to apologize for his use of stimulants, inquired of his physician, "What ought I to take or do when my feelings of exhaustion come on?" the doctor replied, "Go and lie down like any other beast." This was a very rude expression, but no less true. Rest, not stimulation, is the cure for weariness.

The Chinese Famine.—The Chinese Government recognizes in the cultivation of the poppy for the support of the opium traffic the greatest cause of the terrible famine which has been for some years devastating that country. An edict has been issued by the Government forbidding the culture of the opium plant.

—Dr. Geo. M. Beard, the noted writer upon electricity and nervous diseases, consoles the nervous with the idea that they enjoy some felicities of sensation and perception which persons in health know nothing of, thus again proving the truth of the old adage that every evil has its advantages.

—Dr. Roosa of New York, a very eminent aural surgeon, after a thorough examination of the subject announces his conviction that the use of quinine sometimes produces a permanent nervous disorder of the ear.

FARM AND HOUSEHOLD.

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

Valuable Recipes.

We copy the following very valuable recipes from the Boston *Journal of Chemistry*, which is a mine of similar good things :—

Blackboard Paint.—The following is a good recipe for blackboard paint: One quart of shellac dissolved in alcohol, three ounces pulverized pumice-stone, two ounces pulverized rotten-stone, four ounces lamp-black; mix the last three ingredients together, moisten a portion at a time with a little of the shellac and alcohol, grind as thoroughly as possible with a knife or spatula; after which pour in the remainder of the alcohol, stirring often to prevent settling. One quart will furnish two coats for eighty square feet of blackboard not previously painted. The preparation dries immediately, and the board may be used within an hour if necessary. No oil should be used.

Cement for Joining Metals with Non-Metallic Substances.—To obtain a cement suitable for joining metals and non-metallic substances, mix liquid glue with a sufficient quantity of wood-ashes to form a thick mass. The ashes should be added in small quantities to the glue while boiling, and constantly stirred. A sort of mastic is thus obtained, which, applied hot to the two surfaces that are to be joined, makes them adhere firmly together. A similar substance may be prepared by dissolving in boiling water 2¼ lbs. of glue and two ozs. of gum ammoniac, adding in small quantities about 2 ozs. of sulphuric acid.

Black Inks.—We have often printed recipes for black inks, but they seem to be none the less in demand. A correspondent wants one that will not corrode steel pens. Some inks are worse than others in this respect, but our friend should remember that steel will rust when it is wetted, even if it be with pure water. If pens are laid aside unwiped, any corrosion they may suffer should not be charged entirely against the ink. A contemporary has recently published the following form for jet-black steel-pen ink: "Bruised galls, 1 lb.; logwood, ½ lb.; cloves, ¼ oz.; pomegranate rind, ¼ lb.; water, 8 lbs. Boil gently for three hours, stirring now and then; strain off the decoction, and add 2 lbs. more water to the ingredients. Simmer gently for an hour, and strain. Mix the strained liquids, which together should weigh 8 lbs. Allow the dregs to subside, and pour off clear. Dissolve in a portion of it common gum, ¼ lb., sugar candy, 1 oz.; and in another portion sulphate of iron, ¼ lb. Strain both solutions, and mix the whole together. Then add calcined borax, 1 dr.; creosote, 12 drops; dissolve in ½ oz. of spirit of wine."

For blue-black ink, the following is commended by good authority: Aleppo galls, bruised, 9 ozs.; bruised cloves, 2 drachms; cold water, 80 ounces; sulphate of iron, 3 ounces; sulphuric acid, 70 minims; indigo paste, 4 drachms. Place the galls with the cloves in a gallon bottle, pour upon them the water, and digest, shaking often, for a fortnight. Press and filter through paper into another gallon bottle. Next put in the sulphate of iron, dissolve it, add the acid, and shake briskly. Lastly, add the indigo, mix well, and filter again through paper. The ink is to be kept in well-corked bottles. The writing is at first pale green, but it soon turns to a deep jet black. This is not a copying ink, but may be rendered such by the addition of sugar or glycerine.

Seasonable Hints. — The *Phila. Ledger* tells its readers that it is unhealthy to shiver and not either pleasant or salutary to sit about while under the sensation of even a slight cold. Housekeepers should take care that some apartment in their dwellings is sufficiently warmed by stove or range or furnace to be comfortable. Health, no less than personal satisfaction, is involved in this matter. The slight ailments and occasional serious diseases which mark the change of season arise usually from inattention to warnings which the body gives in its protests to discomfort. It is said by some to be heroic and hardy to endure the preliminary touches of winter. But it may be that the hero or heroine is simply indolent, and afraid of the labor or care involved by going into winter quarters.

Trees which retain their foliage may have malaria lurking about them, more especially when the heat of noon is in wide contrast to the cold of midnight. Nature's chemical processes of the kind that are injurious to the human constitution are accelerated in autumn. As in the laboratory the manipula-

tions of the operator give off gases, so in nature the combinations and changes which are constantly going on affect the wider circle of that grand laboratory, the world which we inhabit. The housekeeper must guard against these influences. The sunlight must be admitted to dwellings—the midnight it is well enough to keep out, except so far as to provide ventilation. Philosophers tell us of the "storing of heat." A simple test and proof of this theory is in the warming of the house by the cheerful sun, and the storing of the heat by preventing its escape as the decline of day weakens the warming rays.

Another seasonable hint is in order, in which the fire brigade and the insurance companies are also interested. The heating apparatus of every building, whether used for dwelling or for business purposes, should be thoroughly examined and put in complete repair. Metal corrodes during the summer, and flues become choked. Hence, from the neglect of precaution, cold weather is ushered in by fire alarms, and the report of casualties ranges from slight up to serious conflagrations.

Poisonous Hats, Gloves, Stockings, and Clothing.—We quote the following important facts from the *Scientific American* :—

It is not long since several cases of arsenical poisoning were traced to the wearing of scarlet and blue stockings. Next came a somewhat remarkable case in which the mischief was traced to a highly colored hat lining. More recently English and German papers, medical and other, have called attention to dangerous gloves. In the London *Times* a writer describes the poisonous effect of a pair of the fashionable "bronze green" silk gloves, when worn by a member of his family. After wearing them a day or two the patient was attacked with a peculiar blistering and swelling of both hands, which increased to such an extent that for three weeks she was compelled to carry her hands in a sling, suffering acute pain, and being, of course, unable either to feed or dress herself. Inquiries among the writer's friends discovered three other ladies similarly afflicted.

A German medical journal reports a case of serious poisoning by a pair of navy blue kids. Dress goods of woolen, silk, and cotton, have been found to contain arsenic in dangerous quantities; so also gentlemen's underclothing, socks, hat linings, and the linings of boots and shoes. Prof. Nichols, of the Massachusetts Institute of Technology, reports the examination of a lady's dress which contained eight grains of arsenic to the square foot. In Troy, N. Y., lately, the death of a child was attributed to arsenic sucked from a vail which had been thrown over the child's crib to keep off the flies.

At this rate it will soon become necessary to test for arsenic all goods purchased before venturing to wear them; or else the label—"warranted to contain no poisonous dye"—will have to be adopted by all honest and reliable makers. Hitherto, we believe, the retail dealer has not been held legally responsible for damage done in this way. We do not know that he can be—except on the charge of dispensing poisons without a license. Evidently, however, something should be done to put a stop to the rapidly increasing evil. If the obnoxious tints cannot be secured safely as well as cheaply, then they ought to be prohibited, and another process of dyeing made imperative. Our young chemists will find a fruitful field for the exercise of their inventive powers in the production of the needed dyes.

Putting on Wall-Paper.—This is the way a "farmer's wife" does it much to her satisfaction,—according to the *Rural New-Yorker* :—

To make paper go on smoothly and not blister or wrinkle upon the wall, use boiled starch instead of flour paste. The starch is made the usual way, and put on the paper cold. If possible, have a board a little longer than your lengths of paper, but no wider. You will see the reason when you put on the starch.

Measure paper proper lengths, and cut them by a carpenter's square, so that they may be even. Prepare five or six at once, and lay them all on the board, and apply the starch to the top one. Then lap the bottom back on, a foot or so for convenience; then take hold of the top end of your paper and fit it to the wall. Use a little brush broom; brush first a little way, lightly through the middle, then sidewise alternately. After you get it half way down satisfactorily, pull down the piece that was lapped up from the bottom, and brush all on through the middle first. In this way you will have to be to some trouble to make wrinkles, and when your room is finished every one who sees it will wonder what professional paper-hanger did it.

—Mothers will do well to look carefully after the clothing of their little ones at this season of the year. Keep their feet dry and warm, and they will seldom be sick. Most of the fatality among children during the winter months might be avoided by proper care.

News and Miscellany.

—The Germans grind their wheat with glass millstones, and eat it with paper teeth.

—Three hundred women, carpet weavers in Philadelphia, have struck for higher wages.

—There are said to be over 62,000 miles of telegraph lines operating over the ocean bed.

—At the last election 148 democrats, 133 republicans, and eight greenbackers, were elected to congress.

—In a recent murder trial it was shown that the only incentive was the gain to be derived by the sale of the victim's body.

—From reports of the awards of the judges of the Paris Exposition, it appears that America is getting her share of the prizes.

—The State of Virginia has created a State Board of Health, but has refused to appropriate a dollar to the carrying out of the duties of the Board.

—Dr. Wood, of North Carolina, complains that he has had to manage the Board of Health of that State on the paltry sum of one hundred dollars.

—An English railway train known as "the flying Dutchman," regularly runs between London and Swinton, at the rate of 65 miles an hour.

—The yellow fever has now finished its ravages for the present year, having visited more than one hundred cities and villages with its devastations.

—There are 800 young women employees in the English post-offices who receive good wages for eight hours' easy work, and are granted a pension in old age.

—Belgium tobacco-users consume so much of the filthy weed that the average consumption is five pounds for each inhabitant, including men, women, and children.

—A strike has occurred among the glass-blowers of Pittsburg, in consequence of a notice from their employers of a reduction in wages. Ten large factories are closed.

—History states that at the time of the prevalence of the great plague in London, in 1605, 4,000 persons perished in a single night. The yellow fever devastation is nothing compared with this.

—Dr. Woodworth, member of the yellow fever commission, stated at the late meeting of the American Public Health Association that more than 20,000 people have perished in the epidemic of yellow fever.

—"Body-snatching" seems to be threatening even greater prevalence during the approaching winter than formerly. The usual incentive to the crime is gain through the sale of the body for dissection; but in the recent theft of the body of the late Mr. A. T. Stewart, some other motive must have been the incentive. These ghouls certainly ought to be brought to justice.

—In spite of great opposition, cremation still continues to increase in favor as a mode of disposing of the dead. The city government of Rio Janeiro has just ordered the construction of a crematory at the expense of the city.

—A collision recently occurred in the English Channel between a steamer and an iron bark. The Steamer sank in five minutes with most of the passengers, but few of whom were saved. The cause of the collision was darkness, owing to the night and a dense fog.

Literary Notices.

THE SONG ANCHOR. By J. E. White, Oakland, Cal.: Pacific Press Publishing House.

This neatly printed volume we have no hesitation in pronouncing the best work for Sabbath-schools which we have ever seen. We have taken some pains to examine it thoroughly, and this is an unqualified opinion. In addition to a fine collection of the very best compositions of our standard authors, it contains an unusually large amount of original pieces which are far superior to the average of original music with which some of our popular singing books for Sunday-schools are filled.

The typography of the work is very excellent, and from beginning to end it evinces the greatest care and painstaking effort to secure as nearly absolute perfection as possible. The author has evidently aimed to distance all competitors in this line, and we think he has fully succeeded.

HYGIENE OF THE BRAIN AND NERVES. By M. L. Holbrook, M. D., New York: M. L. Holbrook & Co.

This book proposes to offer a cure for nervousness, and from the examination which we have given it we think the author has collected together a great amount of useful information on the subject. We have no doubt that most cases of nervousness might be cured, certainly prevented, by attention to its suggestions.

Besides remarks by the author on the nerves, their physiology and hygiene, covering some over the first one hundred pages of the work, the book contains nearly thirty pages of excellent paragraphs from the writings of various prominent authors, bearing on this subject, and about one hundred and twenty pages describing the "physical and intellectual habits of distinguished men and women."

For want of space we are obliged to leave for future notice a number of excellent works which are well deserving of being introduced to our readers.

Items for the Month.

☞ Next month this journal will appear so completely renovated and rejuvenated that its readers will scarcely recognize it if they do not examine its contents. With a new dress, new type, new headings, a new cover, and a new name, it will start out on its annual mission of usefulness with new energy and life. How many of our old friends are going with us? All, we hope. We need the support of every man and woman who loves humanity and is interested for the improvement and elevation of the race.

Change of Name.

THIS number of the HEALTH REFORMER is the last which will appear under the old name. Hereafter the journal will be known as GOOD HEALTH. Concerning the change, we offer this word of explanation: For the consolation of the thousands of old friends who have given the REFORMER a hearty welcome once a month for the last twelve years we wish to say emphatically, the change does not signify that the old journal has died, and that a new one is to spring up from its ashes. No indeed. The HEALTH REFORMER is as fully alive as ever to the interests of the people in the direction of health. It has not died, and will not. Its vitality was never at a higher tide, and its constitution was never stronger. The proposed change is one of name only, not of identity. The journal goes right along as it has done heretofore, only under a different name.

Why the change? Why not keep the old name? ask a half dozen correspondents to whom the old associations are dear. We answer, The age is a progressive one. The people, as well as the "times," are continually changing. What is good, wise, politic, and unobjectionable one day, is in all particulars the opposite the next. When the journal was first started, "reform" was the watch-word of progress. To-day, through its connection with political intrigues, communism, and sundry other kindred movements, the word has been trampled in the dust and smirched with infamy and shame. Reform no longer means to the masses, progress, purity, advancement, exchange of error for truth; it means revolution, controversy, discord, the breaking up of pleasant associations, radicalism. To many it has become an opprobrious and obnoxious word. People are afraid of reforms. They are willing to be improved, to be educated, to have errors pointed out and new truths brought to their notice; but to be *reformed*, they are not so desirous.

In view of these facts, and all observing minds will recognize them as such, it is evidently quite impolitic to present upon the very face and front of the journal a term so well calculated to prejudice the mind of the new investigator and to turn him away before he has made a careful examination, and so illy calculated to attract attention and encourage investigation.

The character of the journal is to be the same. It has the same objects, and will continue to pursue the same methods in attaining the same, hoping to do so with ever increasing success. With these explanations we trust our readers will prepare themselves to give to the journal in its new dress next month a hearty New Year's greeting, and join hands with us in one more year's earnest endeavor to alleviate the pains of suffering humanity, and elevate some portions of the human race upon a higher mental, moral, and physical plane.

TO GIVE AWAY.

10,000 "GOOD HEALTH" CALENDARS.

EVERY old subscriber who renews his subscription for one year in advance by sending $1.00 to GOOD HEALTH, the name by which this journal will be known hereafter, will receive by mail free of charge the beautiful and useful Good Health Calendar described in another paragraph. In order to secure the calendar the money must reach this office by Jan. 15, 1879, when copies of the calendar will be sent to all who have renewed up to that time.

This is really an inducement well worthy of consideration; and we hope that all our old patrons will soon find this elegant ornament and very useful and convenient article decorating the walls of their homes.

What Every Subscriber Wants.

BY a patented process recently perfected the publishers of this journal are now enabled to manufacture the neatest, most convenient, most durable, and in all respects most superior magazine cover ever invented. It is a marvel of simplicity and efficiency. Though heretofore used for other purposes, we have recently hit upon a happy plan for adapting these covers to use as files for this journal. By means of one of these each subscriber will be able to preserve unsoiled each number of the journal, and at the end of the year he will have the whole volume as neatly and substantially bound as though he had sent his old numbers to a binder at about double the expense.

These covers will be afforded to subscribers to the journal at the low price of fifty cents each. Being the only agents authorized to sell these very useful articles in this way, our subscribers will do well to accept this liberal offer. Now is the time to buy, so that the very first number of the new volume may be preserved. The covers are beautifully finished, and no subscriber should fail to get one.

A Beautiful Work of Art.

THE "GOOD HEALTH" Calendar which is now being published at this office is not only the first thing of the sort ever attempted, but is a beautiful specimen of the typographic art. It is printed in colors, beautifully illuminated and tastefully executed. It will have a rapid sale. It will be a nice little present for friends when one desires to present something of value and utility as well as beauty. Almost every one could use a hundred copies to most excellent advantage within the circle of his acquaintance.

The Calendar consists of a heavy card board 11x14 inches in size, on which is printed a beautiful border made up of useful and appropriate mottoes, maxims, and interesting facts, together with condensed calendars for the year. In the center are affixed by their upper edges a large number of leaflets on which are printed complete calendars for the year 1879. Beside giving the day of the month, each leaflet shows in connection with the number of the day the time of sunrise and of sunset. These leaflets also contain all the astronomical and other information of like character contained in the most complete calendars, and in a form the most convenient for reference.

The price of this splendid combination of excellences is 15 cents each, post-paid; ten cents each, by the hundred.

☞ Old subscribers who send in $1.30 immediately will receive in return the neatest thing they ever saw in the shape of a calendar, and a file cover for the journal for 1879.

☞ Our friend Mr. R. E. Hoyt is again in the lecture field making telling hits against the fashionable follies of the age. The press notices of his efforts are very flattering.

☞ Those who expect to get a copy of the GOOD HEALTH Calendar free must get their subscriptions in by Jan. 15, 1879. This is required to enable the publishers to know how large an edition to print, as the calendars are too expensive to allow for a very large stock to be left on hand.

☞ Every old subscriber will want GOOD HEALTH for next year. Under the new name the journal will have all the excellences which it has heretofore possessed, and numerous additional features of value.

☞ Everybody who sees the first number of GOOD HEALTH will want to subscribe for it. There is no better business for hard times than getting subscribers for GOOD HEALTH. Who will try it?

An Easy Way to Get a Bound Volume.

THE liberality of the publishers induces them to make another offer to all who will subscribe at once whether they are old subscribers or not. For $1.30 the publishers will send to each person who subscribes or renews his subscription at once, that is, before Jan. 15, 1879, a copy of GOOD HEALTH for one year, and a file cover for the same, which will secure to him by the end of 1879 a bound volume of 384 pages of most useful, interesting, and instructive reading matter, for $1.30, worth at least three times that sum. We want to make at least 10,000 of these covers in the next four weeks.

☞ **Wanted! Wanted! Wanted!**—One hundred live, energetic agents right away to canvass for GOOD HEALTH. Send $1.00 for an outfit, including specimen copies, immediately.

☞ We had the pleasure of attending the recent meeting of the American Public Health Association at Richmond, Va., where we met several professional friends and acquaintances, among whom was our genial friend Dr. Azel Ames, whose recent election to the legislature of the good old State of Massachusetts gives him still more greatly enlarged opportunities for usefulness in the direction of sanitary reform, in which he has for many years been one of the most active workers. We were also pleased to see our friend Dr. H. B. Baker, the Treasurer of the Association, through whose kind invitation we enjoyed the privilege of attending the meeting of the Association and becoming a member of that honorable body.

Our able professor at Bellevue, Dr. Janeway, honored the Association by his presence and gave us flattering accounts of the flourishing condition of our *alma mater*. Notwithstanding the lively opposition of rival colleges, Bellvue keeps her place still as the foremost medical college of America.

☞ File covers for 1878 will be furnished to those who desire at the same rate as for 1879.

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