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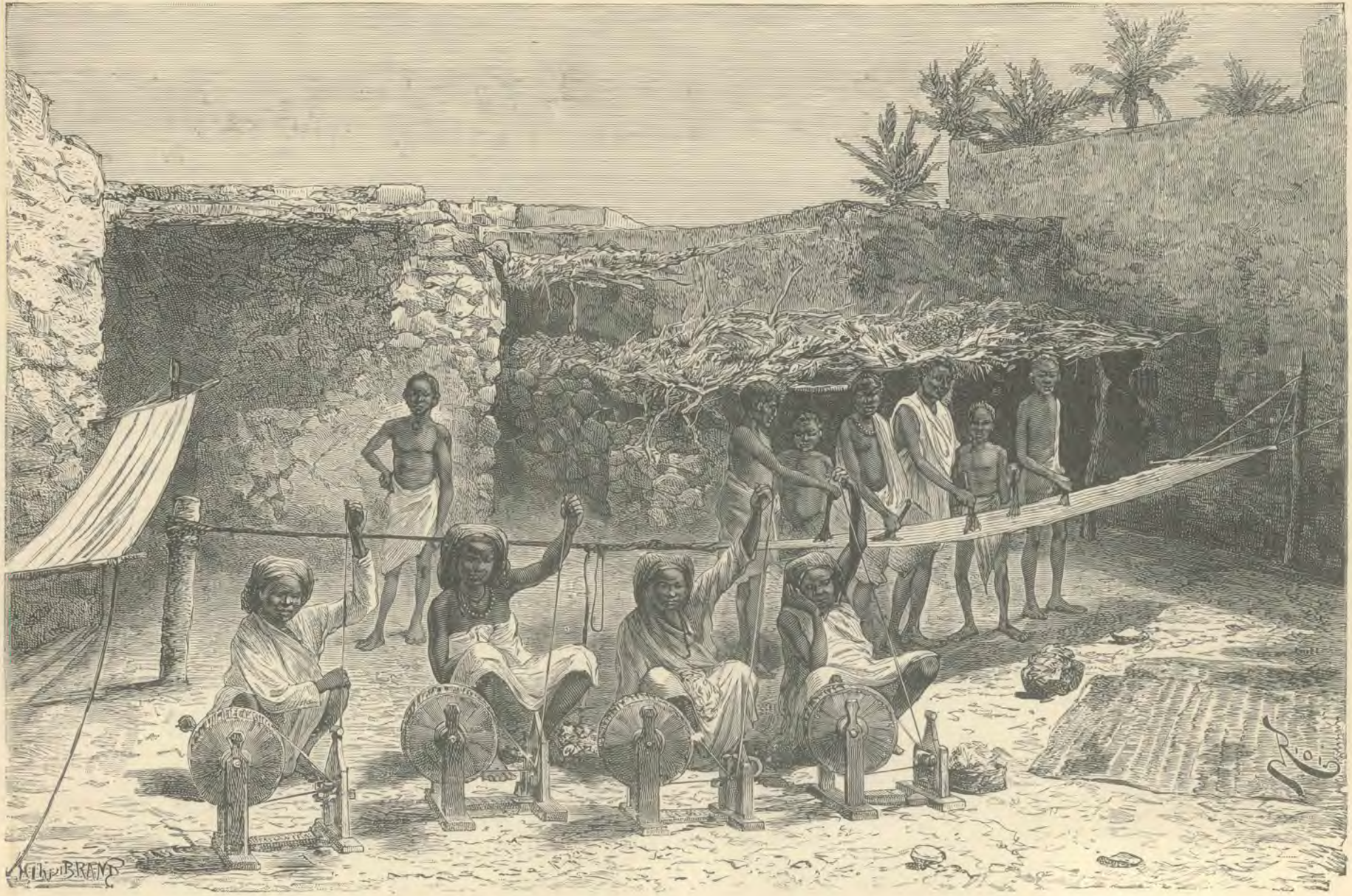

SPINNING, SIZING, AND WINDING COTTON AT MOGUEDOUCHON, AFRICA.

GOOD HEALTH
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BIOGRAPHICAL HEALTH STUDIES.

BY F. L. OSWALD, M. D.
Author of "Physical Education," "The Bible of Nature," etc.

4.—Joseph Keppler.

AMONG the factors of longevity the influence of personal habits outranks that of hereditary transmission so often that the calculators of life insurance companies must often be tempted to ignore their patron's family relations, as they ignore their nationality and their religious theories. Instead of inquiring into the average age of a man's parents, uncles, and brothers, they should at once settle the main question of his domestic habits, his former and present employment, and above all his diet.

Still, the posthumous analysis of sanitary tendencies may derive some assistance from the consideration of family records, and the early death of the first Napoleon, contrasted with the longevity of his brothers, puts the life-blighting influence of grief in a glaringly unmistakable light. Nor can we doubt the significance of the fact that Goethe and Frederick the Great attained, by restless activity, a term of life denied to the intellectual sloth of their parents, or that the transfer of the Catalan mountains to the lowlands of Cuba has diminished the average longevity of the entire race of colonists by ten years.

From that point of view it is therefore a noteworthy fact that the early death of the artist Keppler is considered a portent by all his relations. The average longevity of his ancestors ranged from ten to fifteen years above the average of their contemporaries; one of his uncles attained an age of ninety-two, another of eighty-five years, and his father (now in New York City) enjoys a remarkable degree of mental and physical vigor at an age of fourscore and six.

Thirty years ago, when Joseph Keppler crossed the ocean for the first time, his consciousness of a sanitary reserve fund made him wholly indifferent to the failure of his industrial enterprises. He knew that his talent would sooner or later assert itself against all rivals, and he felt that in the meanwhile he could rough out the chills of adversity as he had weathered the vicissitudes of his strangely checkered boyhood years.

Born February 1, 1839, in a suburb of Vienna, he outgrew the leading-strings of the nursery so quick that in 1848 he roamed the streets in suite of revolutionary agitators, and often convulsed his neighbors by mimicking the panic of the conservative *spiessburgher* and the bombast of fire-eating demagogues. A comedian of nine years is a rare phenomenon, even in the native land of Mozart, and Joseph's father was so much gratified at the popularity of his little boy that he could not find it in his heart to chain him down to the routine of the paternal shop (a candy-factory), and sometimes thought of introducing him to an experienced stage manager, but withal was glad to find that his son had a decided talent for drawing, as well as for practical mimicry. Before the end of his fourteenth year, Joseph's artistic passion had gotten the mastery of his stage fever, and dozens of his sketches had, with slight modifications, been published by the local press; but the young caricaturist felt the need of technical training. "A year's course at a good art school would turn the scales of my luck," he wrote to a relative in Trieste. "An artist cannot dispense with such knowledge; one might as well try to evolve

the trade tricks of chemistry and higher mathematics from his ideals of beauty and virtue."

Business reverses limited his father's means of assistance, and young Keppler, in the exuberance of health and enthusiasm, conceived the idea of making one of his talents defray the costs of cultivating the other, and in 1853 joined a gang of strolling actors and now and then appeared on the stage of Linz and Passau, or turned an extra penny by painting screens, in the broad humor of the Austrian Oberland — his groups of corpulent priests being tolerated where lectures à la Ingersoll would have provoked a homicidal riot.

With the proceeds of that campaign, Keppler returned to Vienna, and gave himself the utmost benefit of a ten months' course at the Kunst Academy, supplementing professional instruction by indefatigable copying raids in the rotunda and the gallery of sculptures.

In the winter of 1855, Joseph Keppler's name had already become a household word among the admirers of political caricature, but the flights of his genius were sadly handicapped by the caution of the necessitous managing editor. Some of his cartoons caused a blockade of the sidewalks in the narrow streets of the Austrian metropolis, but the censor-bullied publishers began to dread the young artist who could construct unheard of combinations of stupidity and meanness with the familiar portraits of such sinners as Haynau and Windischgrätz.

JOSEPH KEPPLER.—1885.

They advised him to renounce politics and try his hand at the still-life sketches of conservative family papers, but the trouble is that the muses of art, as of poetry, decline to answer invocations for such purposes, and Keppler began to cast willful glances toward the Land of the Future, the transatlantic Eldorado of freedom and individuality.

The outbreak of our civil war adjourned those projects, but in 1865, Keppler bade the Vienna censor a long farewell, and transferred his studio to St. Louis, Missouri.

The author of "Lothair" considers the rapid progress of modern civilization the natural out-rush of a river long dammed up by the monk rule of the Middle Ages, and suddenly breaking its fetters with impetuous and irresistible force. Similar phenomena may now and then be observed in the life of individuals transferred from the narrow sphere of their native country to the wide and free arena of their adoptive land. Columbus in Spain and Napoleon in France are cases in point; the conqueror of Europe rushed to the field with the accumulated energy of a long lineage of naturally active, but circumstance trammeled ancestors. With a similar enthusiasm Joseph Keppler flung himself into the stream of American artistic enterprise, heedless of counter-currents and squalls, and certain that sooner or later he would rise upon a tide of success.

The decisive turn of the tide was deferred till 1876, but from the end of that year the measure of triumph far exceeded the original expectation of the founders and publishers of *Puck*. In eighteen months the new paper attained a circulation of 26,000 copies. In 1879 the circulation of the German edition exceeded 50,000, that of the English version 57,000. Two years later the aggregate sales had risen to 128,000 copies, without including the popular annual and the reprints of special features. Keppler's fame became international in a sense Sir Joshua Reynolds and Hogarth could never hope to attain. The cosmopolitan popularity of Gustave Doré is perhaps the only parallel. Some of Keppler's cartoons increased the circulation of the paper to a quarter of a million in special weeks. A certain association of patriotic Americans is said to have bought up and distributed 200,000 copies of the "Declaration of Independence." Political campaign managers more than once imitated their example, and the success of several Democratic candidates was assisted by Keppler's work as effectually as Thomas Nast's contribution to *Harper's Weekly* assisted the crusade against the Tammany robber league.

Is it true that Nemesis lays in ambush for careers of that kind, in the sense predicted by the philosophical monitors of Polycrates and King Crœsus, and a clairvoyant friend of Lord Byron?

"There is a *hoodoo* about the publishing office of

Puck, with all its objective success," said a member of the New York Press Club four years ago; "look at the way its editors are going under in quick succession: Big Von Schenk, first, then Wilhelm Mueller, and now Knotser, who looked as if he could survive a trip to the North Pole. Are there microbes in the office-air? or is it the penalty of success and Bohemian supper-parties?"

The germ theory is perhaps not altogether fanciful; there are buildings as well as camps and ships that prove fatal to a series of successive occupants, and the case of the old Vienna Kaiser Burg, the city residence of the Hapsburgs, is too remarkable to be explained by a mere coincidence: Joseph the Second, his father, the Duke of Reichenberg (son of the first Napoleon) and half a dozen princes, majordomos, and private secretaries, dying young and of the same disease — an insidious form of consumption.

The theory of "over-work," at all events, should not enter into the speculation on the causes of Joseph Keppler's untimely fate. His efforts were too successful and remunerative, in every sense, to become a health-blighting burden, and he worked with a rapidity that made three or four cartoons per month a mere pastime. Like Raphael and Frederick Schiller, Keppler probably suffered less from his labors than from his recreations; less from over-fatigue than from its supposed remedies.

He believed in the necessity of artificial stimulants, — the besetting superstition of so many contemporaries who in other respects rank with the ultra-rationalists, and during the first thirty years of his life he had no special cause to suspect the gravity of his mistake.

Under the influence of a dietetic delusion a naturally strong constitution may thus become a positive disadvantage. Weaklings, like Voltaire, learn in time to take care of themselves, and the son of the little notary Arouet, outlived by nearly forty years his famous contemporary, Marshal Saxe, the son of Augustus the Strong. At twenty years of age Joseph Keppler looked as stout as Benvenuto Cellini, the Samson-artist who slew the constable of Bourbon with his own hand, and rarely fought a duel without killing his opponents, whose skill of fence could not avail them against the Berserker strokes of the brawny Florentine. Cellini, too, was fond of stimulants, but attained an age of seventy-two years by sticking to wine alone, while Keppler undermined his health by the combined influence of wine, beer, stimulating bitters, tobacco, and strong black coffee. The fact seems to be that our organism can adapt itself to the endurance of considerable quantities of a single poison, but is torn to pieces by the irritating and conflicting virulence of half a dozen different toxic substances. Thus sailors may hold their own against the fury of a storm, but are worn out when alarms of fire alternate with the panic of an ice-floe, and whirlwinds with the attack of pirates or polar bears.

In the storm and stress of the St. Louis period, when the fate of a new journal (*Die Vehm*) depended upon the exertions of a single man, Keppler contracted the habit of keeping himself awake with strong coffee, and afterward continued the use of that stimulant in quantities that would have alarmed his friends, but for their belief in the harmlessness of his beverage, or even its value as an antidote to the alcoholic luxuries of gay supper parties which the lionized artist saw no way to avoid even after their after-effects had begun to tell upon his health. Conviviality of that sort is the bane of every popularity, but for a famous artist its temptations in a large city are apt to rise like the fire of a sevenfold heated furnace, since the list of their friends and demonstrative admirers includes hundreds who would shun the society of a famous reformer or philosopher.

The establishment of a far-suburban residence is often the only practical safeguard against that danger. "One should not call a man unsocial because he dislikes to sacrifice his health to the diversions of high life," says Chamfort, and adds: "C' est souvent si on disait d' un homme qu 'il n' aime pas le promenade, sous le pretexte qu 'il re se promène pas volontier le soir dans le Forêt de Bondy" (one might as well say that a prudent fellow-man dislikes outdoor exercise, because he prefers to abstain from moonlight rambles in a robber-haunted forest.)

Keppler stuck to his lodgings in the very center of the noisy city (No. 27 East Seventy-ninth Street), and quieted his sanitary scruples with the necessity of frequent visits to the *Puck* publishing office, though the essential functions of the unrivaled cartoonist could have been carried on in a hilltop villa of the Hudson highlands or White Mountains.

Like other stimulants, the social atmosphere of the American Babylon had become a necessity to the Vienna artist, who, moreover, had inherited a full share of that foible for the luxuries of the table that has for generations been the besetting sin of his native city.

When the general break-down of the overtaxed organism occurred, about half a year ago, the conventional explanation was on hand with its usual promptness: "Caught cold; contracted a severe cold during the Chicago Exposition, and was suffering

from the after-effects till a second cold brought on an inflammation of the lungs." In other words, catarrh-microbes, that show a considerable discrimination in the choice of their victims, and whose activity is counteracted, rather than promoted, by the influence of a low temperature,— were made responsible for the extraordinary complication of disorders that culminated in the death of the jovial artist. Long before his trip to the World's Fair, Keppler had now and then complained of backaches that were usually aggravated by constipation, and of *angina pectoris*, that seemed to indicate the premonitory symptoms of heart disease. Cramps in the lower region of the spine, which often came on at unexpected moments and obliged the patient to clutch the next support, made him suspect that one of his frequent "colds" must have been an attack of the grippe, with its paralytic after-effects.

About the beginning of last October the last-named trouble took the form of a serious affection of the spine, and the consequent neglect of outdoor exercise avenged itself in sleeplessness, lack of appetite, and finally in an attack of pneumonia that reacted on the functions of the heart, and caused the death of the modern Hogarth a few days after the completion of his fifty-fifth year.

(To be continued.)

HEALTH HABITS.

BY HELEN L. MANNING.

IV.— The Choice of Foods.

An Americanized and revised version of Shakespeare's famous grace might well read thus: —

> "Indigestion waits on appetite,
> Ill-health on both,"

and one prime cause may be set down to lack of wisdom in the choice of food materials. The elements necessary for the perfect maintenance of the body, and the relative proportions they should bear to each other, are seldom studied or thought of. Dishes are fixed up to suit perverted tastes, regardless of nutrition. As an instance of this, think of the unholy alliances which lard and sugar are made to enter into with flour and luscious fruits, resulting in abominations of pastries and puddings which would tax the digestion of an ostrich. Heat-producing carbonaceous elements, like butter, fat meats, and sugar, are crowded into the human furnace until it is clogged and its fires smothered, while muscle-forming protein foods, like lean meat, gluten, and milk, are doled out too scantily. It is an astonishing fact that in semi-tropical regions like our Southern States, corn bread and bacon are the food staples, while fruits and green vegetables, which flourish there so luxuriantly, are little used. An excess of heat-producing foods in a warm climate is much more demoralizing than in a cold climate. The lack of physical stamina of the Southerners, is well known, and it is due to bad dietetics fully as much as to an enervating atmosphere. The elephant and the camel are tropical animals whose strength and endurance are well known. Why may not human beings live in the tropics, and be as strong as those of their race in the temperate zone? The hardy Scotsman requires an abundance of bodily heat because of the rigorous region in which he lives, and yet his diet is largely of oatmeal and milk,— two foods in which the carbonaceous and proteid elements are almost perfectly proportioned. But where nature furnishes outward heat, the supply of heat-producing foods should be diminished and the table largely furnished with cooling, non-stimulating fruits and green vegetables.

Waiving the strict vegetarian question for the nonce, it will hardly be disputed that Americans as a rule eat far too much meat, that they are, in fact, the greatest meat eaters among civilized peoples. The beef-eating Englishman is only a type of the aristocratic and well-to-do classes; the English peasant rarely eats meat, it is too expensive for his use. Yet who will dispute that the muscle and native endurance of the English yeomanry are far in excess of that of the nobility.

One has only to read the rural papers to be convinced of the immense amount of disease among the domestic animals whose flesh is used for food, and as if that were not enough, the butchers must needs meet the demand for "tender" meats, by keeping them until the putrefactive germs have made good headway in destroying or breaking down the fatty and muscular tissues. Here is an interesting (?) dialogue between "Ruralisms" and the butcher, which appeared not long since in the *Rural New Yorker*. It was given as an item of information, with no hint of the unwholesomeness of the disgusting practice. The butcher was represented as being one who furnished the swell class of traders with their meats,

poultry, game, etc., and the methods referred to are all too common, especially in city markets : —

"*Ruralisms* — Our people rather objected to the last lamb chop as not being quite sweet.

"*Butcher* — Perhaps it was too old.

"*R.* — How old was it ?

"*B.* — Oh, about two weeks.

"*R.* — Why do you keep it so long ?

"*B.* — To satisfy our customers.

"*R.* — Why do they prefer it so old ?

"*B.* — It is better ripened, more tender, more gamey. Many of our customers at this season of the year will not buy lamb or mutton that is less than a month old. They buy saddles, and require that we hang them up until they become hairy.

"*R.* — What is hairy ?

"*B.* — Oh, moldy — covered with mold. Our way is to hang the meat up in a dry place until it becomes well seasoned, and then to place it in the icehouse where the dampness soon causes the mold to appear.

"*R.* — Do you get more for such lamb ?

"*B.* — No ; we charge the same price, but owing to shrinkage and care, it costs us more and our profit is therefore less.

"*R.* — Is fat or lean lamb demanded ?

"*B.* — Oh, fat always. Anything lean is too good for us. One of the tricks of the trade is to buy poor, lean lambs and cover the legs artistically with caul fat. This caul fat is worth only two and one half cents a pound ; but when nicely adjusted over the poor leg, brings what the leg brings — about twelve cents a pound or more."

This butcher-style of artistic decoration with fat, may be new to many, but it only serves to emphasize what was stated earlier in this article about the absurdly large consumption of fat meats. Pork, the staple in thousands of households, is nearly all fat. The conditions necessary to produce very fat hogs and cattle are invariably such as promote disease in the animals, and when the flesh of such creatures is crammed in large quantities into the human stomach, what but disease can follow ?

It is a very gratifying sign of progress toward more healthful modes of living when such a conservative writer as E. P. Powell puts a plea like this in the *Independent* : "I am not a vegetarian, but I am sure that we can profitably reduce our meat bills to one tenth their present size. Use an abundance of cereals and vegetables and fruits, and you will know less than half the diseases that curse you. My children never taste any meat except fish and eggs, and I wish I had been brought up that way myself. They have no knowledge of intestinal troubles or headaches, or the instability and passions of meat eaters. They are physically stout and clean, and their heads are capable of excellent work, with no aches. I believe the moral results are not to be over-estimated. Nature has given us an abundance of wholesome food that we despise in order that we may devour the less digestible, more costly, and less natural. If evolution be true, our animal ancestors were fruit and grain-eaters. Our flesh-eating propensity comes from our savage ancestors, who were also cannibals. When I see pain-drawn faces, I feel like saying, Throw away your tea and coffee and tobacco and meat, and eat nicely cooked fruits, vegetables, and cereals ; that is your natural food."

Mr. Powell's point as to the influence of diet upon morals is a strong one. Every careful student of dietetics will confirm the fact that flesh foods, tea, coffee, and condiments, serve to stimulate the baser passions to a greater or less degree, and to dwarf the spiritual nature. More than one intractable child has been made docile and obedient by a diet of bread and milk, with fruit. Whatever excuse there may be for an adult to use meat, it certainly should be excluded from the dietary of a child. Even the beef-eating Englishman does not allow meat in the nursery bill of fare. Simple, non-stimulating foods promote physical as well as moral well-being, and conversely, a dietary made up largely of meat, invites disease. The impurities necessarily incident to a meat diet are carried into the intestinal tract and into the blood, so that germs of typhoid fever, diphtheria, erysipelas, and the like, find ready lodgment and material upon which to develop. When the blood and tissues are normally healthy, incidental disease germs are destroyed by the picket force which Nature has set for the defense of the body. They deliver us from a thousand unseen and insidious dangers.

It is a great mistake to regard fruit as a relish and a luxury, instead of a necessary article of food. Bananas, figs, and dates are quite rich in elements of nutrition, while the more juicy fruits, like apples, pears, apricots, plums, grapes, and berries, contain large percentages of organic acids and salts, which are very essential to the proper nourishment of body and brain. Of our northern fruits, the apple deservedly takes first rank. During the long season which, in this climate, apples may be had, they should find a place on the bill of fare at least for one meal of the day, preferably raw or baked. It is not objectionable to stew them and serve with a very little sugar, but do not do violence to a fruit so lus-

cious, nor to your digestion so precious, by disguising its fine flavors with quantities of sugar and pungent spices, as a filling for the inevitable pie! What a multitude of culinary abominations that small word covers, and for how many ills of the flesh it is responsible in the great American commonwealth! Tropical fruits are now abundant in the market, and at prices reasonable enough to bring them within the reach of all. Taken in their natural state, there is no danger of eating too many of them.

Among the numerous reasons to be urged for simplicity of diet, the following are the most prominent: It would serve to bring the rich and poor more nearly on the same level and so save needless heart burnings and rivalries. Emulation would give way to brotherly kindness and love. The money saved to both classes could be thus freed to promote good works in the earth. It would be a great saving of time and labor, and the overworked housekeeper would find half her burdens rolled away, and she could thus minister more perfectly to the higher nature of her household. Women are proverbially the slaves of their own appetite and that of their families. Simplicity in diet would be a great saving of vital energy and digestive vigor, and thus a promoter of health and happiness. The only classes that would suffer by a widespread reform of this nature, would be the doctors and druggists, and it is quite probable that the majority of these could drop into other professions and trades, and the world would be the better for the change.

SANITARY MOTES AND BEAMS.

(Concluded.)

WHO can dispute that if the hair of a Newfoundland dog could transport yellow-fever to a distant Mississippi town, and a newspaper printed in an Ohio village where smallpox was raging could fatally infect a United States consul in a foreign port where the disease did not exist; that a cloud of dust, a swarm of flies, or a single fly — as Sawtschenko, Simmonds, and Sternberg demonstrate — can disseminate cholera and become a focus of infection, which would have been impossible had ordinary care been exercised in preventing the exposure and promptly destroying the discharges and excreta of those already sick? Cities are reported clean whose sanitary inspectors have merely walked through crowded tenements, a hundred or more a day, and been satisfied with external evidences of brush and broom, leaving carpets and rugs unlifted; pieces of heavy furniture, with the fluff of years behind and beneath, unmoved; and closets, cupboards, pantries, storerooms, attics, and cellars undisturbed. The cellars of our great cities — and I speak with personal knowledge of many in New York, Brooklyn, and Philadelphia — are greater abominations than even filthy living apartments. The New York *Herald* of August 8, narrating the death of two children by falling from a window on the fourth floor of a tenement at 204 West Sixty-first street, said: "To get at the bodies of her children, the frantic mother had to go through the cellar of the house. There she waded through indescribable filth, almost knee-deep, to where her children lay, when the foul odors overcame her, and she fainted." It added: "The Sanitary Superintendent issued an order that the cellar must be cleaned out within twenty-four hours."

Do you believe that it was the only one of its kind that needed cleaning? No city can be accounted clean until its ordinances require every cellar door to be widely opened to sun and air — that royal pair of germicides; every cellar to be emptied of its refuse; every cellar wall and ceiling to be scraped and whitewashed; every cellar floor to be taken up if rotted, and sprinkled with lime if uncovered — a tedious and expensive process; but effective sanitation, costly as it must needs be, is cheap beside the outlay of a single epidemic. There are underground foulnesses in all our great cities, of which they should be rid at any cost, as where rag-pickers and bone-gatherers collect their filthy stores, and Italian street-corner fruit-sellers keep their decomposing bananas, grapes, and oranges, till, rubbed off by dirty pocket-handkerchiefs, they are exposed for sale, glistening after their repulsive polish with impure saliva. If some mote-hunter, loath to see so huge a beam, chooses to find solace in disbelief, I might be able to shock him by declaring that I have seen the figs he munches unconcernedly, flattened in their pretty boxes, in a country where syphilis reigns, by questionable thumbs moistened by equally suspicious saliva.

Shall I, while revealing unsanitary horrors, dare lift the sweeping train of the fair promenader, fashioned after that of women in other countries who never walk upon the streets, and show the nasty mess of spittle, excreta, mud, and dust she gathers from

the sidewalks upon her white skirts and silk stockings? She will not believe me; but the bacteriologist, who scoops the mud from between the cobblestones of the streets to find it swarming with microscopic life, can gather as rich a harvest of microbes from these same dainty undergarments.

Dr. Graham, bacteriologist of Starling Medical College, in response to an official inquiry by a member of Congress, reported that he was able to obtain thirteen colonies of two kinds of bacteria from one dirty, worn bank-note; and the *Medical Record* of January 21 of this year states that a British bacteriologist discovered nineteen thousand microbes, including those of tuberculosis, diphtheria, and scarlatina, vegetating upon a single note.

Other harborers of morbific germs are the textile fabrics employed in the furnishings of street-cars and stages, which the chairman of the Sanitary Committee of the New York Board of Health reports as "a menace to public health by reason of their continual exposure to uncleanness and infection from the clothing of diseased and filthy passengers," which, like their grimy bodies, may be foul with the sputa of diphtheria, tuberculosis, or syphilis, the desquamations of scarlatina, measles, or erysipelas, the emanations of typhus, or the alvine discharges of cholera or dysentery. A commendable league of zealous ladies, who are seeking to prevent the abominable practice of expectorating in public vehicles, induced a few car companies to display placards to the effect that "Gentlemen are requested not to spit on the floor," but these appeals, intended for beasts who were never gentlemen, were hung in inconspicuous places or covered by other notices, and the spitters continue to discharge their syphilitic and tubercular sputa on the floor mats, to be taken up on ladies' petticoats and carried to their homes. The spitter and the other beast who voids his impure nasal secretions where it suits him, are largely responsible for the spread of influenza, for, according to Pfeiffer, the discoverer of its bacillus, "its contagium is found in the moist secretions of acute cases in the discharges from the nasal and bronchial mucous membranes."

"Cholera," says Ernest Hart, "can only be drunk and eaten. It cannot be caught and breathed;" but the tubercular mischief-maker, who finds the ever-open door of the respiratory passages his readiest approach, may also enter at any or all the orifices of the body. Among 1000 autopsies, Osler found 275 with tuberculosis; among 8873 patients in the surgical clinic at Würzburg, one seventh (1227) were tuberculous; the necroscopic statistics of Harris and others "show that one third, perhaps over one half, of the people who live to middle age have some form of tubercular infection;" and Dr. Williams, of Johns Hopkins hospital, estimates that tuberculosis of the female generative organs is four times more frequent than is generally supposed. Can any more obvious method of direct infection in these cases be imagined than the trailing skirts of women, gathering tubercular sputa from the pavements?

The sanitary inspector is destined to become the most important agent of future civic administration. The perfunctory burning of a pan of sulphur in a diphtheritic chamber, the sprinkling here and there of a solution of corrosive sublimate, or the substitution of the sweeter scent of thymol, pinol, or some newer "ol" for the foul odor of the privy, will not then be the tolerated limit of his interference. All that science teaches, and all that intelligence can devise will be exacted of him. A sanitary inspection will be a deliberate, painstaking, critical examination of nooks and corners, and their disinfection; the flooding of the lairs of microscopic motes, and the deluging of unsightly beams with those unstoppled, unpatented, inexhaustible germicides — air and sunshine. — *Albert L. Gihon, A. M., M. D., Medical Director United States Navy, in "The Sanitarian."*

Customer — "This overcoat you sold me last fall is worn so thin I can almost see through it."

Dealer — "Yaw. Dat ess our patent sanitary overgoat. Ven you leave it off in der spring you von't catch cold."

CLEANLINESS. — Cleanliness covers the whole field of sanitary labor. Cleanliness, that is purity of air; cleanliness, that is purity of water; cleanliness in and around the house; cleanliness of person; cleanliness of dress; cleanliness of food and feeding; cleanliness in work; cleanliness in habits of the individual man and woman; cleanliness of life and conversation; purity of life, temperance, all these are in man's power. — *Sir B. W. Richardson.*

DOKTORS are not all quaks; you hav got wrong noshuns about this. Doktors, lawyers, and ministers hav a hard row to ho; they hav to deal with kredulity, knavery, and fears of the people, — three ov the most difficult traits in human natur tew handle. If i was a doktor and understood my bizzness, i should doktor my pashunts, and let the disease tak care of itself. More folks are cured in this way than enny other. — *Josh Billings.*

THE HOLY (CHOLERA) WELL AT MECCA.— Mr. E. Frankland, writing to the London *Times* on the condition of the water of the holy well of Zem-Zem, used by the Mahometan pilgrims at Mecca, says: "A sample of the water came to me through the India Office. It was full of dead microbes, and contained, in an equal volume, considerably more animal matter than is found in average London sewage. In addition, it afforded evidence of previous pollution with an amount of such matter at least six times as great as that contained in an equal volume of average London sewage. The water has been again, quite recently, analyzed by Colonel Bonkowski Bey, consulting chemist to his Majesty, the Sultan of Turkey. His results confirm my own analysis. They show that the water is still abominably polluted by excrementitious matters. The surroundings of this well are such as would be likely to impart to the water these dangerous ingredients. Mecca appears to have no sewerage system, all foul matters being buried in the earth within or near the city. Hence the foulness of the water percolating into the well through this mass of corruption. Colonel Bonkowski Bey informs me that Mecca is supplied with water of excellent quality; but of course, the pilgrims are bound to drink at the holy well. Tens of thousands of pilgrims continue to die of cholera at Mecca and to spread the disease elsewhere; but, so far as I know, no measures have been taken to prevent pollution, and Mecca continues to be a cholera center."— *Scientific American.*

NIGHTMARE.— Children are particularly subject to nightmare, and when they wake, terror-stricken, they need all the kind and soothing care possible. Effectual methods ought to be taken at once to prevent a repetition. Every kind of butcher's meat should be avoided, and a plain, simple diet consisting largely of milk, should be taken, and personal hygiene strongly insisted upon.

Family nervousness predisposes to nightmare, which thus becomes related to the thousand and one ills which we inherit from our ancestors.

The most potent cause of bad dreams has yet to be mentioned. This is worry, which is one of the most fatal disorders which attack mankind. For one who is injured or killed by hard work, a hundred are struck down by worry. Girls who are preparing for examination often worry themselves into a fever which prevents sleep, or else causes it to be broken by horrid visions of unsolvable problems or impending failure. Remember, also, that we go to bed to sleep, and not to review the events of the day.

Do n't think in bed. This may seem to be impossible advice in many cases, but it is certain that we can dismiss thought if we make a sufficient effort to do so. Reading in bed is a very bad habit, which ought never to be contracted, or if it has been contracted, it ought to be given up resolutely. It is a habit sanctioned to some extent by the example of many eminent people, but it is radically wrong, for all that.

Finally, no words are strong enough to point out the danger of slow poisoning drugs which are often taken to procure sleep, whether it be an alcoholic night-cap, morphine, opium, chloral, or any other. The medical man has recourse with reluctance to these as a last and temporary resort, and only he can tell how many lives are wrecked by the ill-timed use of them and their subsequent abuse. And of all horrible dreams, none are so awful as those which assail people who habitually use these false comforters. Better than all drugs in the world for procuring sleep are simple food, a regular life, and a calm mind. — *Cassell's Magazine.*

EFFECTS OF TOBACCO ON PHYSICAL DEVELOPMENT AT YALE AND AMHERST.— Statistics on this controverted subject are rare (*Med. Rec.*). The following remarks are by Dr. Jay W. Seaver, of Yale, a reliable authority. They are based upon the observations made of a college class of one hundred and eighty-seven men during their first and final years. The growth of the men in four of the principal anthropometrical items, of varied character, is as follows: —

	Weight Pounds.	Height Inches.	Chest Girth Inches.	Lung Capacity Cu. inches.
Non-users	11.87	.894	1.74	21.6
Irregular users	11.87	.788	1.43	14.45
Habitual users	10.66	.721	1.276	12.17

If this growth be expressed in the form of percentage, it will be seen that in weight the non-user increased 10.4 per cent more than the regular user, and 6.6 per cent more than the occasional user. In the growth of height the non-user increased 25 per cent more than the regular user, and 14 per cent more than the occasional user. In the growth of chest girth, the non-user has an advantage over the regular user of 26.7 per cent, and over the occasional user of 22 per cent, but in capacity of the lungs the growth is in favor of the non-user by 77.5 per cent when compared with the regular user, and 49.5 per cent when compared with the occasional user. It has long been recognized by the ablest medical authorities that the use of tobacco is injurious to the respiratory tract, but the extent of its influence in checking growth in this and other directions, has, I

believe, been widely underestimated. Dr. Seaver's conclusions in regard to the dwarfing effect of tobacco are fully corroborated by the following statement by Professor Hitchcock, M. D., of Amherst College, more recently published: "The matter of tobacco smoking as an influence upon the physical development of Amherst students has been studied in the history of the class of '91. Of this class 75 per cent have increased in their measurements and tests during the whole course, while 29 per cent have remained stationary or fallen off. In separating the smokers from the non-smokers, it appears that in the item of weight the non-smokers have increased 24 per cent more than the smokers; in height they have surpassed them 37 per cent; and in the chest girth, 42 per cent. In the lung capacity there is a difference of 8.36 cubic inches (this is about 75 per cent) in favor of the non-smokers, which is three per cent of the total lung capacity of the class."

Experience of a Moderate Drinker.— The immediate effect of a moderate amount of alcohol is a feeling of increased vigor. Ideas are increased in quickness, but lose in concentration. The system soon demands the stimulant more frequently. Abstinence is followed by suffering. The hand loses its steadiness, the brain its clearness. Insomnia adds to the drain on nervous forces, and the patient instinctively resorts for relief to the poison which is the direct cause of his condition. In time these symptoms become intensified, and evidences of chronic degenerations manifest themselves. Scarcely an organ in the body is exempt. Alcohol in the stomach retards digestion by paralyzing terminal nerves, and by a chemical action on the pepsin of the gastric juice produces changes in the secretions of the liver, and vitiates the processes throughout the whole alimentary tract, by causing a perverted action of the sympathetic nervous system. Partially digested food passing from the stomach to the intestines becomes subjected to abnormal fermentations. As a result, poisonous products designated by modern chemists as ptomaines and leucomaines, are formed. Elimination is retarded by alcohol; consequently these products are absorbed into the system and an auto-poisoning results. The lungs and skin undertake to assist in relieving the system of effete material, as shown by the peculiarly disagreeable odor of breath and perspiration persisting for days after cessation from the use of alcohol. These patients will be found to suffer from chronic catarrh of most of the mucous membranes, notably the stomach, and chronic liver and kidney changes leading to cirrhosis and Bright's disease. Degeneration and resultant weakening of the walls of blood-vessels predispose to rupture (usually in the brain), producing apoplexy.— *Dr. E. F. Arnold, in North American Review.*

The German Professor on Hypnotism.— "Hybnodism," the German professor said thoughtfully, "vos a mendal disorder, dot vos raging brincipally in der noosebapers. It vos a hypertrophy auf der imachination, undt der writers on mendal pheenomenon vos first attacked. You migd call it a sort auf writer's cramp auf der prain. Der ingrediences peen made auf a fool undt a rascal. Mix thoroughly undt set avay in a cool blace. Bud one authenticated case has been reborted, undt dot vas told py a notorious liar auf France. As a defence for der lawyers to set up in murder trials it vould peen a pudding, as Schiller saidt; bud its brincipal use so far alreaty has peen confined to sheap novels undt skyentific magezines. Fife tousand years ago a Greek philosopher hybnodized a rooster-chicken mit a straight chalk-mark on der floor, undt now, in 1893, der skyentific beeples discofer dot you can hybnodize beeples if dey aint got as much prains as dot rooster. Nature got hard feelings toward a vacuum, undt if you got no intelligence auf your own you can absorp dot from somepody else. It vos a choyful surbrise to some beeple's heads to get a mind inside auf dem py hypnodism if dey did n't had some alreaty py natural. It 's bedder, young mens, dot you cultivate some prains auf your own, aber you debend on hybnodism aber hybnodermic inchections auf mendalidy. In der meandimes I can hybnodize dis class more expeditiously undt skimultaneously mit a glub. It 's bedder you enchoy dis pecooliar pheenomenons vhile she is goin', pecause she vill soon go down der stream auf time pehind der plue glass, der roller skate, Koch's lymph, Keeley's gold cure, undt pig-headed canes. You can now go der door outside undt blay ball mit your feet."— *Judge.*

The Exception.— An old lady of Massachusetts was famed in her native township for health and thrift. To an acquaintance who was once congratulating her upon the former, she said: —

"We *be* pretty well for old folks, Josiah and me. Josiah has n't had an ailing-time for fifty years, 'cept last winter. And *I* 'ain't never suffered but one day in my life, and that was when I took some of the medicine Josiah had left over, so 's how it should n't be wasted."— *Harper's Monthly.*

RULES FOR CORRECT, ARTISTIC, AND HEALTHFUL DRESS

BY FRANCES M. STEELE.

THIS exhibit[1] is intended to show impressively in pictures the beautiful lines of a natural body, and such good designs of clothing as shall adorn those perfect proportions. A few designs are reproduced in cotton, silk, and wool,— a working dress and apron, a street suit, a reception gown, and several evening dresses. Whether they shall be satisfactory to the woman who would like to copy them, depends on her skill in choosing the right textures, more especially, the right colors to harmonize with her own complexion, hair, and eyes. To be beautiful for her, they must accord with her own habits in life. These gowns were fitted to the proportions of the Venus de Medici. To repeat their charm, there should be a good body underneath them, for the only successful way to possess beautiful clothing is, first, to possess a body beautiful in shape. This may be done in a far more complete manner than women are apt to realize, for Nature is kindly and will heal many injuries, if allowed to do so.

A dress good for one may be hideous for another. Beautiful dress cannot be, in any sense, uniform, like the uniformity of fashion. It will make each woman look her best; it will hide her defects of structure when they are incurable; it will heighten her good points. If a woman will learn what are the essential elements of beauty, and will set about securing each one, the result will be a beautiful picture of herself. The process is not necessarily expensive; with a little industry, genuine beauty may be had at a trifling cost. This does not mean that inferior things, paltry designs, and flimsy materials are to be put in the place of substantial textures in the hope of satisfactory results. All dress involves a certain expenditure. It is careful thought that secures charming effects from inexpensive but honest fabrics. A beautiful gown is becoming; it gives room to exercise every muscle, so that its wearer may be graceful; and for that reason it will also be healthful. It will also be suited to the performance of her particular duties, and it will express *herself*, and not another. It must be all this, or it is not beautiful, according to the standard of good taste. If we know what is beautiful for us, we have only to wear it. The task is in the knowing, which comes by careful thought, study, and experiment. Knowledge of any kind comes in no other way.

Every woman was endowed by her Maker with a desire to be beautiful; therefore it is right and innocent. It is not sinful vanity, even though for long generations it has been called so. In its proper exercise it is just as worthy as a woman's natural love of children. Like every other gift, it should excite gratitude and be consecrated to noble uses.

Our definition of a natural body includes such outlines and proportions as are shown by Greek sculpture. These outlines for a woman are a comparatively small head, slightly drooping shoulders, somewhat narrow, a body bounded by successive, gentle, outward curves softly melting into one another, the widest part being at the hips, thence declining to the feet. A man has a comparatively large head, high, square shoulders, and is largest there, while his body gradually tapers to his feet. Therefore, such features of dress as make the shoulders appear broad

[1] This article was published by the author under the head, "The World's Fair Exhibit of the Society of Physical Culture and Correct Dress," and is republished by her permission.

and high and the body to taper from below the armpits with lines approaching each other like the sides of the letter V, are masculine and not feminine. Fashion does not imitate the lines of a natural body. A conventional gown contradicts them. If one wishes to be truly beautiful, one will try to hate and to forget a fashion plate.

A woman, then, to make herself beautiful, must secure the outlines of classic sculpture by healthful gymnastics and proper diet. She may do this in her ordinary duties if she will learn to stand rightly. To learn to breathe correctly is also necessary. It is but little matter what gown she wears while she is growing to right proportions. The old ones made large enough will answer till they are worn out. But no one can be graceful or beautiful, no matter what her outlay, while she clings to corsets and whalebones. Dr. Kellogg says, "Health waists are a device of the devil, to keep in bondage women who are seeking deliverance from the weakness and misery from which a really healthful mode of dress might emancipate them." Several good bust supporters are in the market. No one need look slouchy. Knitted underwear of sufficient weight, and one petticoat with its own waist, are enough under the gown. Stockings made to fit each foot, rights and lefts, and shoes without heels, whose soles are the shape of the sole of the foot, are very important to insure growth toward right proportions. An ideal body is firm, closely knit, with only enough fat to round out its muscles. If one pleases, one can measurably control one's weight.

The processes by which one acquires a beautiful body, the elements of beauty in a gown, and the right motives which may incite a woman to the making of a glorious picture of herself, are set forth in a book written by two of our members. It is called, "Beauty of Form and Grace of Vesture," and is published by Dodd, Mead & Co., New York.

When the body has attained right proportions, the simplest dress will enhance its loveliness. The thought and trouble that selects and provides just the right thing to adorn a beautiful body, brings with it its own reward. It is like the work of a painter.

As the living tissues a woman deals with are transcendently superior to canvas and colors, her work may be far finer in result, for she may infuse into it every day the changeful expression of a glowing soul.

It is on these lines that the work of our Society has hitherto progressed. While we were preparing our exhibit, it was convenient to have some definite ideas of the features of beautiful gowns, and the following rules were formulated : —

RULES BY WHICH TO DETERMINE THE ARTISTIC VALUE OF GOWNS.

(Copyrighted.)

1. Do the lines of the gown follow those of a natural body, as represented in classic sculpture? The armhole describing the top of the shoulder joint, the sleeve following the shoulder line, or, at least, not contradicting it; the gown giving room for the waist region from below the bust to grow gently larger as it approaches the hips; the front line directly below the bust having a gentle outward curve; the whole presenting the contour of the Venus de Milo, and not inward V-like lines.

2. Is every part of the gown suspended from the shoulders? and does it appear to be so suspended? A yoke or an easy waist is only a convenient method of suspension.

3. Is the dress loose enough to permit free and graceful movement, allowing a possible suggestion of the play of the muscles? Does it appear to be easy by an absence of seams stiffened by whalebones?

4. Is the form of construction suited to the fabric, simple forms for heavy goods and gathers for thin materials?

5. Is the costume genuine throughout, being just what it pretends to be? If made of two materials, its prototype would be the gowns of the early Middle Ages, one worn over another. If there is pardonable simulation, is that simulation consistent? That is, where one material seems to be that of an undergarment (like a child's guimpe), does it appear to be an undergarment every time that particular material appears? Is there nothing to contradict the continuance of such a possible undergown to the feet?

6. Do the folds of the gown radiate from the only proper points of support, mainly the shoulders, secondarily the hips? When folds radiate, or spring out, are they confined, or do they seem to be confined, by a belt, a band, a lacing, a clasp, or a buckle?

7. Does the gown indicate unity of purpose, each part subserving, or at least not contradicting, that purpose? That is, if it is a house gown, is it in every part suited to its supposed use? If a walking dress or an outing suit, is it adapted to convenience in walking, to freedom for exercise? The same rule is to be applied to the accessories of a costume. Do the buttons on the gown serve to button it, each having its proper buttonhole? Do the ribbons on the gown tie, or seem to tie, something? Does the wrap afford, and seem to afford, added warmth? Does the hat secure, and appear to secure, shade for the face? Does the bonnet supply warmth for the head, and does it appear to do so?

8. Is the decoration of the gown subordinate to the gown itself; not arresting attention before the wearer, like the lines of a diagram; not contradicting the contour of a classic figure, especially not seeming to make the lines from the armpits down approach each other like those of the letter V? Does the ornament serve, or seem to serve, the purpose of strengthening the edges of the gown, uniting its parts, or holding its gathers? Where the edges of the dress join the skin at neck and wrists, do they seem to blend with it, either by a gentle graduation in color, or by an uneven edge, that is, not being harsh in tint nor abrupt in form?

9. Is the dress, as a whole, subordinate to the impression that should be given by a possible wearer, that is, not claiming by an intensity of color, by violent contrasts, or by other bizarre effect, attention above and beyond the personality of the woman arrayed in it?

10. Is the gown suited to the personality of the wearer in color, texture, and form; that is, does it enhance her best physical features, concealing or agreeably modifying any infelicity of structure or complexion? Does it express the sentiment of her disposition, giving an expression of her gentleness and modesty, her sprightliness and vigor, her steadiness and executive ability, or her serene, majestic dignity? The successful application of this last rule is, necessarily, the final outcome of much independent thought. It is the crowning effort and highest achievement of genius in this greatest of fine arts, the making a glorious picture of a living woman.

We are hoping much from the education which the World's Fair must give the art instinct in every direction. We hope that it will so refine and elevate the taste of our countrywomen, that they will apply to this highest of arts, the skill and insight already acquired in the production of dainty trifles. We look for new enthusiasm in this fashioning and perfecting of living instruments to do the blessed work of the world, this building and adorning of the temples of the Holy Spirit. We believe that it is possible for the women of this nation to become the most beautiful on earth, and that they have the nobility of soul that will consecrate that beauty to divinest uses.

THE ADVANTAGES OF MUSCULAR DEVELOPMENT.— In *Longman's Magazine* for January, Sir B. W. Richardson, M. D., presents in an admirable way some of the advantages of physical training. We quote the following paragraphs: —

"In athleticism there are many great advantages. It makes men manly, strong, ready — in a word, vital to the best of vitality, when it is carried out with earnestness, in a proper spirit and under proper rules. It were an easy matter to double the strength of an uncultivated nation by introducing into it good athleticism. Those four magnificent qualities of mind and body — precision, decision, presence of mind, and endurance — introduced into a nation, hammered into it until all the nation was individually influenced by them, would make the nation grander than any influx of wealth, fashion, or glory of conquest. It would beget a new kind of athleticism, an athleticism of the soul, which would lift men and women into a superior beauty, both of body and mind. It would also insure length of days; and it would insure happiness of existence, because it would exalt mankind from low and groveling conceits and pleasures into contests that are as superior as they are exhilarant and graceful. Once more, it would stamp a newer and purer heredity, freed of ancestral stains, beyond anything that has ever been conceived.

"The prospect is cheering and hopeful; but there are disadvantages connected with athletic life which darken the picture, and which must not be concealed. There are errors abundant that need to be weeded out. There is an error in the commencement and the ending of the athletic life that should be remedied. It should not be begun at too youthful a period; it should not be continued to too late a period. I have put it at from eighteen to thirty-six years of age, and that I am convinced is a very just limitation for all except those who are obliged to follow it, as in the acrobat way, during a life of toil, devoted to the amusements of the people. At eighteen the organs of the body have fairly developed, and yet are not so matured as to have lost any degree of their elasticity, power, and facility for affording graceful and powerful movements. The nervous system has become well developed, and the senses have reached to good and healthy action. At thirty-six the organs have ceased to increase naturally, and all parts have entered into a maturity which stands in the way of new activity of a permanent character. By this time the body begins to feel concussions and vibrations which, exalted, pass easily into shocks affecting the elastic substance, especially the elastic arteries and all structures that require to be cushioned by the elastic element. If elastic tissue grows in the body in youth and adolescence, there comes an early pe-

riod when it fails to grow; and, as occurs in a piece of India-rubber, there comes another period when it begins to lose its elasticity. Then any new exercise of an extreme kind becomes a mechanical injury, which soon shows itself in the fact that the man once so successful is forced, *nolens volens*, to admit that he is beaten by younger competitors."

While heartily endorsing the remarks of our friend, Dr. Richardson, in the above paragraphs, it occurs to us to make the suggestion that the instruction respecting the time at which exercise should be begun and the period of life at which it should be suspended, refers only to what is commonly known as heavy gymnastics for athletics. Exercises of the right sort may be begun even in early infancy. In childhood and early youth is the time especially for the development of the chest and lungs and the attainment of symmetry in growth. As regards exercise for the middle aged, there can be no doubt of its utility. The man of middle and advanced age requires more exercise than does the child or the young man, but possesses less aptitude for violent or straining exercises. The man of forty requires every day enough vigorous exercise to make him perspire freely. The man of sixty years must avoid such vigorous exercises, but needs a very large amount of gentle, unexciting exercise to maintain that purity of body and tissue which is the best of all means of antagonizing senile decay.

Muscular Work and Respiration.—The close relation between muscular activity and respiratory power is well shown in a comparison of the frog or the turtle and the bird. The lungs of the frog are a mere pouch into which air is swallowed in a manner similar to that in which warm-blooded animals drink water. In the turtle we find nothing which corresponds to the respiratory movements of warm-blooded animals. In the bird we have an enormous thorax filled with lungs of a highly developed character, which are reinforced by communicating cavities in the bones. The movements of the turtle are slow. It lives a sluggish life amid the slum and scum of some stagnant pool. The bird, on the contrary, lives a life of the greatest activity, and possesses a power of muscular exertion almost incredible. Herr Gatke asserts that godwits and plovers can fly at the rate of 240 miles an hour. The swift has frequently been seen to outstrip a lightning express train. The man of sedentary life breathes little, like the frog and the turtle, as life is on a low level. He has little capacity for useful activity because his breathing powers are undeveloped. Those who wish to live with the birds, on a high level, must develop lung capacity, which can only be accomplished by means of active, vigorous, physical exercise. J. H. K.

The Way We Walk.— A man's foot is larger than a woman's; it is stronger in the ankle and more powerful in the formation of the toes, especially of the ball of the great toe. When a woman owns a strong, firm, wide foot, many of us experience, perhaps, no sensation of surprise at finding her "strong-minded;" when a man trips along on a delicate little foot, people instinctively believe him to be lacking in power, and often put him down as effeminate. The right foot is ordinarily stronger and more mobile than the left. Most people tread more firmly with the right than with the left foot. There seems to be a greater capacity for propelling the body with it. To the attentive eye, none of the ordinary gestures or movements betray peculiarities of individual character more plainly than the gait — the sailor's rolling, the soldier's stiff, the countryman's jolting gait are immediately recognized. Slow steps, whether long or short, suggest a gentle or reflective state of mind, as the case may be; while on the contrary, quick steps seem to speak of agitation and energy. The proud step is slow and measured; the toes are conspicuously turned out, the leg is straightened. In vanity the toes are rather more gracefully turned, the strides a little shorter, and there is very often an affectation of modesty. Tiptoe walking symbolizes surprise, curiosity, discretion, or mystery. Obstinate people, who, in an argument, rely more on muscularity than on intellectual power, rest the feet flat and firm on the ground, walk heavily and slowly, and stand with the legs firmly planted and far apart. Turned-in toes are often found with pre-occupied, absent-minded persons. The toes pointed and dragged on the ground with slow, measured step, give a pompous appearance. Perplexity occasions irregular steps and abrupt movements. The prudent walk is measured and regular, entirely free from hurry, agitation, or precipitation. The miser's walk is stooping, noiseless, with short, nervous, anxious steps. In joy the walk is lively, for lightness, grace, suppleness, characterize a happy mind, although the walk here is often modified in harmony with the cause of the joy; the joy of gratified ambition, for example, betraying itself by a different outward semblance from the joy of happy love. Disappointment walks heavily and with irregular step. Where a revengeful purpose is hidden under a feigned smile, the step will be slinking and noiseless.— *English Paper.*

Home-Culture

THE EDUCATING INFLUENCE OF WORK.

At a conference of Charities and Corrections recently held in Denver, Colo., a paper was presented by Mrs. John B. Hanna, of that city, which, while its purpose was to aid in solving the problem of the best methods of dealing with the inmates of industrial schools, yet embodies so many helpful suggestions respecting the proper development and education of children, applicable to all walks of life, that we are sure that parents will do well to give careful consideration to the points presented. After speaking of the importance of a separation between the classes committed to the schools for criminal offenses and those committed for vagrancy or because they are homeless, the writer says: —

"It seems most essential that as wide a scope of activity as possible should be given this class of our girls. The majority of them have never been submitted to systematic restraint. Some of them have been most cruelly treated without any shadow of reason by those who have stood in the relation of parents or guardians to them, so that the only restraint they have known is that associated in their minds with cruelty and unreason. Others have not known any authority, but have done whatever they chose, so that in the cases of nearly all, a reasonable self-control and a law-observing freedom had been no part of their training until sentence had been pronounced upon them in the courts.

"To place such girls where only indoor life is possible, is like caging a wild bird. Not all fortunately placed and well trained girls enjoy the quiet occupation of sewing; not all are attracted by the occupations of the kitchen; but when in the case of these unfortunates you consider the fact that cleanliness and tidiness are 'lost arts,' that well-prepared food and regular meals are unknown luxuries, how could it be expected that they should like to cook, to scrub, to wash, or to iron? Close confinement for any length of time is hateful to them, and almost unbearable. And while a certain amount of knowledge in all these domestic branches seems absolutely essential to girls and women, and should be constantly borne in mind as part of the training to be given, yet outdoor activity and life may supply the needed element through which to get a better direction for the physical and mental forces of these girls.

"*Repression* was the word of the past; *direction* is the word of the present. Breaking the will is a proceeding no longer approved by students of human nature.

"Nobody's will is too strong, if only it is used in the proper way. Nobody has too much force or energy, when it is applied to good ends. So the personal force, the energy, the will, we should not wish to suppress, but to conserve and give it a proper direction.

"Then, again, the idea that the training of girls should be chiefly indoors, *i. e.*, in domestic duties and employments, I believe to be founded an a mistaken notion; viz., that they are so differently constituted physically and mentally from those of the other sex as to demand an entirely different order of employments. Of course, between the mature man and woman there is a difference in physical strength and a natural difference in the spheres which each occupies. But those spheres are differential only whenever the family is founded and the children are to be raised. Until then each woman, as well as each man, is at liberty to choose the calling or vocation most suitable or pleasing to her. As the man may become a dressmaker or a milliner, so the woman may become an engineer or an architect. Individuality is the one prime element that should determine the career, and it should not be prevented from that privilege by the artificial customs and rules of society.

"Now the outdoor life is what many of these girls absolutely need. Somehow the earth, air, sky, and water, the mountains, clouds, and storms, are all educating and moulding influences. They are nat-

ural, in accord with the nature placed among them. The educated and trained as well as the uneducated and untrained, find delight and relief in close association with nature. To make the earth yield fruit for man was the first problem of our first parents. And well it was so. What is there that will more surely teach providence for the future, enlarge the capacity for forethought, promote patience and a sense of dependence, the qualities which change the human animal into a reflective being? Work for the mind and work for the hand go hand in hand. And the idea is growing that this is the natural method in all education of the young. The pleasure of turning a barren field into one of waving grain; of seeing a tiny seed develop into a most marvelously beautiful flower; of harvesting a crop of shining strawberries; of watching the growing life of domestic animals,—all these things afford pleasure as well as profit to any one engaging in such work.

"Incidentally I would say, on the other hand, that it is just as helpful, just as preparatory to future usefulness, to train boys in indoor occupations, as well as in outdoor ones, in domestic duties as well as in the trades and professions. When visiting the industrial school at Golden last spring, I could not help being impressed with the idea that the scrubbing of the floors, the washing of the garments, the mending of the clothing and the shoes, the cooking and the serving of the meals by the boys, were not only a convenience for the immediate time, but a preparation, and a wholesome one, for the domestic part of life. We need to inspire ourselves and the young with the idea that no honest, necessary work is demeaning or degrading; that it is not unmanly to scrub floors or wash dishes or sew on buttons, nor unwomanly to drive a nail or mend a fence or harness a horse; that the necessity of a work and the ability to do it are the only determining factors of the question what we shall do.

"Again we may help our girls and our boys by giving them the privilege of acquiring something that they may call their own that has commercial value. Nothing seems to change the standpoint of a man in his regard for law and government as against anarchy and disorder, as the ownership of property. He feels that he has something at stake. His interest in the government is now a personal one. He does not now wish to tear down; he wishes to build up. While he wishes for every improvement in the government, he does not desire its destruction. He is now a constructive element of the community, rather than a destructive one. The same principle will hold good with the children, as with men and women of a later growth.

"Why not study normal human nature to get our remedies for it when defective? And the girls are not so different from the boys in their mental constitution that they cannot appreciate the dignity of ownership and understand its value, when an opportunity is placed before them and they are taught what it means. And it has been a source of wonder to me that parents in the more fortunate walks of life have not been able to see that this is an avenue to the extension of the dignities and pleasures of their daughters, which would contribute greatly to their usefulness and happiness as well as their contentment, when they have never questioned it in the case of their sons."

There is no bit of work which a boy or girl can do that has not an educating power. The essential reason why every child should have the discipline of work, is not merely that it may be fitted to earn a livelihood, but for the development of character and the arousing of a sense of moral responsibility.

TWO DINNERS.

BY MATTIE F. STEARNS.

MRS. FRUITDALE had heard it stated on good authority, that if you did not wish children to put beans in their ears, on no account tell them so, but give them something else to do. Now it was not beans in the ears that Mrs. Fruitdale feared at present, but remarks; and she had found by experience that they could be quite as uncomfortable as the former. How to apply the principle to the case in question puzzled her.

Paul and Pearly, six and three years old, she was developing according to most approved methods No blighting "do n't" had ever quenched their childish thirst to know the whys and wherefores, oh, no! her child gardening was too advanced for that. Of course difficulties would present themselves, like the present one, when she felt like relaxing slightly from her established custom.

Paul and Pearly with herself had been invited to dine with a particular friend of hers. Offense would be taken should the invitation not be accepted, as

given, for she was visiting her old home for the first time after a long absence. Unfortunately, this friend was horribly carnivorous, and how could she subject the delicate sensibilities of Paul and Pearly to such a sight as portions of dead cow, dead sheep, and dead fish served up for food! — her Paul and Pearly, who from infancy had dined only upon delectable fruits and grains! Of course the time must come, sooner or later, for the sickening revelation to be made to them, that people did eat these dead things, but she was not quite prepared for it yet; and how to ward off the anticipated storm of uncomfortable remarks was the question. She knew positively it would result in the natural order of development which the prospective dinner would set in motion.

She was tempted to cry, "Paul and Pearly, *don't* on any account notice any difference in the food which shall be served at Mrs. Butcher's. If anything is given you that you do not care for, leave it, but *don't* say a word." But then, that would be like the fond mother saying on her departure, "Don't, my dears, put beans in your ears," and of course returned to find the ears full. Mrs. Fruitdale thus resolved not to incur any such result, and bethought herself of all the "do's" applicable to the case. The last thing before starting for Mrs. Butcher's she said, "Paul and Pearly, mama is going to take you to dine today at a lady's who has beautiful flowers, and she always has the loveliest on her dining table. Try and see if you can name all the kinds you see, to mama, when we come home. Mrs. Butcher is a very pleasant lady and loves children and wants very much to see you; try to say all the pleasant things you can, and do as you would like some one else to do in your home."

There! thought Mrs. Fruitdale with a sigh, I must abide the results. I have done all I can in harmony with progressive education, to turn their ideas in the right direction. Their minds ought to be so engaged by the charming flowers my friend always has, that they will not give any attention to the deadly repast before them.

Arrived at Mrs. Butcher's, Mrs. Fruitdale's mind was soon at ease on the score of her former worry. Paul and Pearly were just the "dearest darlings," and said and did just the right thing at the right time, and Mrs. Butcher remarked aside to her friend as they passed in to dinner, "Such delightful children I never saw! They are a real treat; Pearly is a little picture, to say nothing of her bright doings, and Paul has such a rare mind, so observing, it is such a pleasure to hear his remarks!"

Preliminaries over and dinner once begun, Mrs. Fruitdale noticed with satisfaction that both Paul's and Pearly's eyes were fixed on the charming flowers, and then settled herself mentally for an enjoyable time.

Just then a distressed expression on Paul's face caught her eye. The first course, oyster soup, was being served, made as the most approved oyster soups are — well peppered and buttered. Paul had just sampled the broth which had brought a rush of tears to his eyes. "Mama," he gasped, "what 's in my soup?"

"O is it too warm?" anxiously inquired Mrs. Butcher, "the poor child has burned himself."

"It 's something else," persisted Paul, "it smarts."

"It 's the pepper, I think," explained Mrs. Fruitdale; "he has never used it. It does not matter, Paul, dear. Leave it if you do not care for it."

Pearly, warned by Paul, left her's untouched. Suddenly Paul's eyes rested on an oyster on his plate.

"Mama, what are these funny things?"

Mrs. Fruitdale tried not to hear, but after a moment's pause the question came again, "What are they, mama?"

"Oysters, my dear," and Mrs. Fruitdale quickly resumed the conversation; but Paul was a kindergarten child, and always went to the bottom of everything.

"But, what are oysters, mama?"

"They are a kind of animal-mollusks that live in the water," helplessly replied mama. Paul opened his eyes, "Animals? they don't move; are they alive?" "Of course not, Paul, they are cooked," and Mrs. Fruitdale looked don't, but did not say so; she tried to be so engaged with her friend that Paul could n't interrupt.

The thought of cooked animals on his plate was too great a novelty, however, for Paul, and the sight of every one eating them was still more interesting. He at once set out on a tour of investigation by beginning a post-mortem on his oyster, Pearly assisting at the autopsy.

Soon another slight lull in the conversation gave Paul the opportunity to say, "See, mama, I have cut my oyster all up. I have been trying to find how he was made, and I don't quite see. Where are the oyster's eyes and mouth, mama? and how does he eat? Is this his stomach? [tapping gently with his spoon the 'fat' part of the oyster in question] and what makes it all black? Is it what it eats?"

Mrs. Fruitdale imagined that Mrs. Butcher grew white around the mouth about that time, and as visions of the oyster at home, imbibing sea filth, passed before her mind, she said, "Oh, never mind, Paul,

dear, we 'll study all about 'the oyster' when we go home."

Mrs. Butcher looked as though she thought, "That child ought to be sent from the table," and Mrs. Fruitdale thought it was a pity that grown people were not as much interested about the composition of their food as children.

Fortunately just then a change of course changed the subject, and Mrs. Fruitdale made one desperate attempt to fasten Paul's and Pearly's minds on the flowers. All went well for a time, till the second course was being served, and Mrs. Butcher asked Paul if he would have roast beef and chicken.

"What is roast beef?" immediately inquired Paul.

"Why," said Mrs. Butcher, hesitatingly, "it 's, it 's, it 's cows, I suppose. Will you have some?"

Paul looked bewildered, but said, "If you please." He saw a warning in his mother's face just then, but turning to Pearly, he said confidentially, as he looked at the other platter, "I know what that is, its a hen, only they have cut off its head and feet and pulled out its feathers."

Fairly launched into the second course, Paul bravely attacked his "piece of cow" with an expression of mingled curiosity and disgust.

Mrs. Fruitdale saw he was getting ready to explode another set of questions, and trembled.

"Mama, do they cut the pieces off the cow to cook while she is alive?"

"Of course not, Paul."

"How do they kill the cows, then?"

"In different ways, dear, but mama wants to talk now with Mrs. Butcher. We will talk some other time about it."

"But, mama," persisted Paul, "are dead cows good to eat?"

"Most people think they are very nice, Paul, try for yourself."

And Paul tried. As he cut a piece of the rare beef and the juice ran over his plate, mingling with the vegetables, he looked sick, and remarked to Pearly that it looked exactly as his finger did when he cut it, and he wondered if dead cows were good to eat why dead people would n't be, and he wondered if they would taste the same, and asked Pearly if she would dare taste a piece of her cow if he would, but Pearly shook her head, and cautiously kept on the potato side of her plate.

Paul being more venturesome, finally took a mouthful, following which Mrs. Fruitdale heard a faint choke and turned to see Paul with a very red face and tears in his eyes, gasping,—

"Mama, the cow won't go down; what shall I do?"

"Mrs. Butcher will excuse you from the table, dear," and Paul left.

"My children have thus far only eaten vegetable foods," explained Mrs. Fruitdale, "they are wholly unaccustomed to a flesh diet."

"Yes, I see," dryly remarked Mrs. Butcher, and she did not add anything more about Paul's "delightfully interesting" sayings.

Paul soon returned to the table, stating that he did not want to eat anything more dead, and asking if he please could n't have another plate, "cause, mama," he explained, "the blood from that piece of cow is all over my squash and potato"—that was his plain English version of "dish gravy."

Mrs. Butcher looked faint, and it was noticeable that her "piece of cow" was almost untouched, and Mrs. Fruitdale felt faint, and wondered if the old adage our grandmothers used, "Children should be seen and not heard," was not a good thing sometimes, child extinguisher as it was, and everybody wished the third course would hurry up.

And when it did come, pastries and puddings, there was a perceptible relaxation in everybody's expression, for was there ever a child that did not love sweet things? And Mrs. Butcher had thoughtfully added a dainty dish of bonbons for Paul and Pearly.

Now through all the vicissitudes of this unfortunate dinner Pearly had maintained a wise silence, eating what she could and leaving the rest. There was nothing attractive at all in the appearance of the flesh food to tempt her, and not being of an investigative turn of mind, like Paul, she was content to leave it alone; but dessert was no sooner on the table than her eyes sparkled at the dainty colors of the bonbons and the tempting pastries. Mrs. Butcher smiled, satisfied. Pearly said, "If you please," to everything, determined to leave nothing so pretty unsampled, and Paul followed her example.

Neither of the children had ever been allowed pastries at home; their tastes had been kept wholly natural, but Mrs. Fruitdale at present felt perfectly willing that they should eat anything if only they would n't talk!

Pearly decided to begin with lemon pie, probably because it was yellow, and that was a favorite color of hers; then, too, lemons were so nice and sour, she was very fond of them. But poor Pearly was destined to learn that things are not always what they seem. One mouthful swallowed and her disappointment knew no bounds, and she made it

known in a very audible cry. Everybody looked up in surprise.

"Why, darling, what's the matter?" they asked.

"There is something in the pie I don't like," she sobbed, and every little curl in her head bobbed indignantly, as she added further, "it looked so pretty, but it's got y'ngar in it, and I don't like y'ngar."

"Well, dear, try the candies; perhaps you will like these," suggested Mrs. Butcher. Pearly brightened a little, and sampled a caramel — it looked so like a cunning little package wrapped in the wax paper. It was fun to pull the wrapping off, too, and then she hopefully took a mouthful, or tried to, but the whole went in, and oh! such choking, persistent, clinging sweetness that tangled itself all over Pearly's teeth, and could not be gotten rid of! It was too much to be thus disappointed at every turn. The dreadful caramel would not go down, neither would it come out; it just stuck so dreadfully sickeningly sweet, and Pearly could n't even get her teeth open to speak, so with the tears streaming, she rushed from her chair to her mother's. Everybody thoughtfully rose from the table just then, and Pearly was carried choking from the scene to have the caramel extracted.

"Mrs. Fruitdale," exclaimed Mrs. Butcher in despair, "what do your children eat, anyway?"

But Mrs. Fruitdale's only reply was, "Come and see!"

THE LITTLE INDIAN.— Lulu was learning to mend her stockings.

"I think I have mended enough," she said, as she took the first stocking off of her big yellow darning-ball. "I want to play now, mamma."

"Let's play and mend the stockings all at the same time," suggested mamma.

"How?" asked Lulu.

Mamma took two chairs and two shawls. She put the chairs a little way from the footboard of her bed, and then pinned the shawls over the footboard and over the chair-backs.

"Now, my little squaw, I want two baskets woven for me right away," said mamma, as she showed Lulu the holes in the other black stocking.

"This is your tent, and I want to see what a fine Indian weaver you are. My little girl wants these baskets for to-morrow."

"Yes 'm," said the little Indian, and she went into her tent.

In and out, up and down, went the bright needle, till the holes were all mended and the yellow darning-ball was all covered up by the black yarn.

"Here are your baskets," said Lulu.

"Why, what a fine weaver!" exclaimed mamma.

"I'll be an Indian every time I mend my stockings, mamma, it's such fun!" declared Lulu. "And you'll make my tent, won't you?" she asked.

"Yes, indeed," said mamma. "I shall be very happy to."—*Marjory Deane.*

THE FIRST MENU CARD.— It was Duke Henry of Brunswick who was first observed in the intervals of a banquet to scan carefully a long strip of paper by the side of his plate, and when the curious guests ventured to inquire into the nature of his studies, he explained that it was a sort of program of the dishes which he had commanded from the cook, to the intent that if some delicacy which especially appealed to him were marked for a late stage in the repast, he might carefully reserve his appetite for it. The simplicity and beauty of the idea appealed instantly to the duke's guests, and the menu card from that moment became an institution.

FOR THE COMPLEXION.— Wash your own dishes, polish your own brass and silver, sweep and dust, and make up your own bed, water and tend your own flowers — in fact, keep yourself busy and in good spirits, or take a brisk walk or ride in the afternoon of each day in fine weather. Eat eggs, milk, and digestible food, leaving off everything fried, rich in condiments and fats. Sleep seven or eight hours in the twenty-four, in a well-ventilated room in which the sun has been permitted to shine several hours each day. Let the light fall on you; you are like a plant — you need it. And in less than a year your complexion will be better than any lotion or pomade could make it.—*Sel.*

YOU will find as you look back upon your life that the moments that stand out, the moments when you have really lived, are the moments when you have done something in the spirit of love. As memory scans the past, above and beyond all the transitory pleasures, there leap forward those supreme hours when you have been enabled to do unnoticed kindnesses to those about you, things too trifling to speak of, but which you feel have entered into your life and character.— *Sel.*

A POUND of sal soda contains from four to five times as much alkali as a pound of hard soap, and therefore it should be used with care. Washing soda should never be used in solid form, but should be dissolved in a separate vessel, and the solution should be used with judgment.

A ROOM is dusted only when the dust is taken out of the room, and that is done only when it has been carried out of the room. This is done by using a soft cloth to dust with and by wiping the surface of each article slowly and with care not to throw the particles of dust up in the air whence they will settle again instantly somewhere else.

BE sure that the lamp chimney fits close at the base or it will make a side draft, causing the blaze to be unsteady.

THE BANANA, AND SOME WAYS IN WHICH TO USE IT.

THE banana is essentially a tropical fruit, growing very generally in the East and West Indies, South American countries, and some of the Southern States. The plant is an annual, sending up stems to the height of ten or fifteen feet, while drooping from the top are enormous leaves three or four feet in length, and looking, as one writer has aptly said, like "great, green quill pens." It is planted in fields like corn, which in its young growth it much resembles. Each plant produces a single cluster of from eighty to one hundred or more bananas, often weighing in the aggregate as high as seventy pounds. The banana is exceedingly productive. According to Humboldt, a space of 1000 feet, which will yield only 38 pounds of wheat, or 462 pounds of potatoes, will produce 4000 pounds of bananas, and in a much shorter period of time. It is more nutritious than the majority of fruits, and in tropical countries is highly valued as a food, affording in some localities the chief alimentary support of the people. Its great importance as a food product is shown by the fact that three or four good sized bananas are equal in nutritive value to a pound of bread. The amount of albumen contained in a pound of bananas is about the same as that found in a pound of rice, and the total nutritive value of one pound of bananas is only a trifle less than that of an equal quantity of the best beefsteak.

The unripe fruit, which contains a considerable percentage of starch, is often dried in the oven and eaten as bread, which, in this state, it considerably resembles in taste and appearance. Thus prepared, it may be kept for a long time, and is very serviceable for use on long journeys. The variety of the banana thus used is, however, a much larger kind than any of those ordinarily found in our Northern markets, and is known as the plantain. The dried plantain, powdered, furnishes a meal of fragrant odor and bland taste, not unlike common wheat flour. It is said to be easy of digestion, and two pounds of the dry meal or six pounds of the fruit is the daily allowance for a laborer in tropical America.

Baked Bananas.— Select perfect but not overripe fruit, wash it thoroughly, and cut off the ends. Place in a shallow dish, an earthen one is preferable, and bake in a moderate oven for an hour. When it is done, the fruit will be thoroughly soft, and most of the juice will be retained within the skins. If baked too long, or in too hot an oven, the juices will be evaporated, and much of the flavor will be lost. Serve hot with or without cream.

Bananas in Syrup.— Heat in a porcelain kettle a pint of currant and red raspberry juice, equal parts, sweetened to taste. When boiling, drop into it a dozen peeled bananas, and simmer very gently for twenty minutes. Remove the bananas, boil the juice until thickened to the consistency of syrup, and pour over the fruit. Serve cold.

Banana Dessert.— Soak a cup of tapioca over night. When ready to cook, add three cups of boiling water, and cook in a double boiler in a quart of water until transparent. When done, add a cup of sugar and three or four sliced bananas. Serve cold with cream.

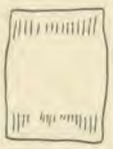
Banana Toast (*No. 1*).— Peel and press some nice bananas through a colander. This may be very easily done with a potato masher, or if preferred, a vegetable press may be used for the purpose. Moisten slices of zwieback with hot cream, and serve with a large spoonful of banana pulp on each slice. Fresh peaches may be prepared and used on the toast in the same way.

Banana Toast (*No. 2*). — Prepare the toast by moistening slices of nicely browned zwieback as in the foregoing. Peel the bananas, and reduce to a pulp, afterward beat very light with an egg beater. Beat the whites of eggs, one for each banana, until very stiff, add the banana pulp, and beat together until thoroughly mixed and very light. Serve on the slices of moistened zwieback.

DRESS REFORM FOR THE BABY.

In the New York *Recorder* of March 15, is a report of an interview with Mrs. Hudders in regard to the dress of infants, in which are so many good and sensible thoughts that we reprint the whole article, with cuts.

"New babies should not be kissed or handled. Even the fond mother should refrain from indulging



ABDOMINAL BAND.

JACKET.

her maternal feelings in these pleasures. Upon entrance to this world our little ones should be allowed to sleep and rest as much as possible. They are not strong enough to sit up straight on one's arm until they are at least a year old," began Mrs. Hudders, when interviewed yesterday upon the correct care of a child from the time of its birth until it is a year old.

"So many poor little children have their health ruined before they are able to walk, through being imprudently clothed. I have often taken up a crying baby belonging to one of my friends, and found that the poor little thing's bands and skirts were so tightly pinned around it as to cause pain. Now, how can a child be expected to thrive under such circumstances?"

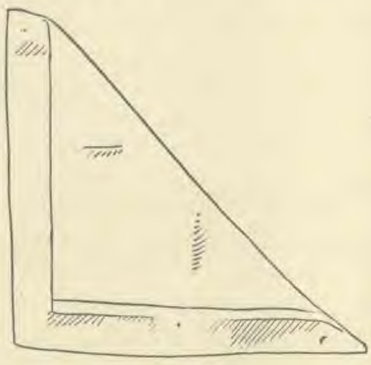
"But," interrupted the reporter, "don't doctors advocate the keeping of tight bands around a baby's body?"

"They used to advocate snug bandages, but I think that of late such theories have been exploded, and now the fashionable women are beginning to dress their children rationally. The awful bands which used to be wound around infants were in themselves enough to keep them weak and sickly."

"What would you suggest instead of the old-fashioned band?" asked the reporter.

"This," promptly replied Mrs. Hudders, as she lifted a little wee white woolen thing from a box which stood on the table close at hand. It looked and was shaped like a wristlet, only much larger. "It is the new abdominal band, and is one of the most important parts of a baby's outfit. You see, it is very elastic and will give with the slightest swelling of the child's body. The old band would not give at all. It was pinned snugly around the child in the morning, and there it stayed all day.

"The little one would be fed, and its stomach would naturally expand, but the band would not stretch an eighth of an inch. A baby should wear one of these bands both night and day. Next to this in the daytime the child should wear this little



DIAPER.

SOCKS.

jacket. You see, it folds over the chest, so that it can be adjusted to the size and comfort of the child. Next comes this little slip, made with and without sleeves. It is a substitute for the old fashioned flannel petticoat, which used to have a wide linen band,

another abomination. For cold weather I should advise the wearing of two or even three of these slips, for it is much better to dress the baby warmly than to keep it in a hot nursery.

"Mothers make a great mistake when they clothe their children thinly and keep them in over-heated rooms. It is much better to have the child dressed so that it will be warm in a cool and well-ventilated room. But to return to this imaginary child, which I have been dressing: It is now ready for its dress, which, as you see, is also made of wool and, like the slips, only just covers the child's feet. Now my baby is dressed, and all the weight of its clothes hangs from its shoulders. It can breathe, eat, and bathed. A mother cannot be too particular about this, as so much depends upon it. I think that a baby requires bathing at least three times a day. By bathing I do not mean a tub bath, for I do not believe in dipping a child right into water, and they are seldom strong enough to stand it. I think it is better to sponge it in water which feels comfortably warm to the hand. To some children it is very injurious to bathe them at night. It has the same effect upon them as it has on grown people — it makes them restless and uncomfortable. With some children it is better to try a dry rubbing before putting them to sleep for the night. It is just as invig orating and not so relaxing to the muscles."

SLIP WITHOUT SLEEVES.

SLIP WITH SLEEVES.

DRESS.

exercise to its heart's content. Is n't that better than dressing a child as it used to be dressed?"

"What should babies wear on their feet?" was the next question asked.

"Little woolen stockings, and if the mother wishes, she can put on the small worsted shoes. They will not hurt the child, but there is no sense in them, for if the child is at all active, as it is sure to be if it is healthy, it will manage to kick one or both off before it has had them on for half an hour. This little outfit which I have shown to you weighs just sixteen ounces, and I am sure, when babies wore those yards and yards of flannel which reached to the ground, a single outfit must have weighed from three and a half to four pounds. Just imagine a little baby carrying such a weight, the greater part of which was suspended from its waist.

"Another very important attribute of care conducive to the baby's health is the way in which it is

"Have you any particular theories concerning a child's bed?" was the next question asked.

"Indeed I have," replied Mrs. Hudders. "In the first place, a baby should always sleep alone, on a fairly hard hair mattress. It should never be rocked to sleep. If a mother once gets a child into the habit of being rocked or walked to sleep, she will always have to do it. When it is time for a child to go to bed, it should be laid down and left. If it happens to cry a little bit, as most children will, it will not hurt it.

"In laying a child down, great care should be taken to smooth its little ears back, so that they will not be turned forward, and grow into bad shapes. Great care should also be taken in watching that a child is not continually laid on the same side. I have often seen a child very much deformed from this very thing. The little bones, which are no more than gristle, or cartilage, sink into the position in

which the child lies, and will, in time, grow that way, if care is not taken to prevent it."

"What are your ideas about the feeding of a baby, Mrs. Hudders?" asked the reporter.

"Ah! now I am getting upon my pet subject," she said laughingly.

"Well, to begin with, I believe that there is nothing so good for a newborn child as the food which nature usually provides, but I highly disapprove of the wet nurse. There may be exceptional cases, when it is necessary for the safety of the child's life, to have one, and then the mother cannot be too careful about the woman she chooses. I feel very strongly upon this subject, because one of my friends had such a sad experience, when trying to procure for her baby a wet nurse. Three women were sent to her with excellent references, and she tried them, each in turn. The first was addicted to morphine, the second to drink, and the third had led an immoral life. It is a scientific fact that a child's nature can be materially influenced by the nature of the woman who nurses it. Does not that alone prove how dangerous it is to take the first person who offers her services? In looking up the subject, I have found that there is a class of women who make a profession of being wet nurses. It is a very difficult subject to deal with, and, as one can readily understand, it would be hard to find an intelligent woman in such a business.

"Then, another thing, although I believe that a mother should nurse her child whenever she can, I do not believe in her doing so if she is worried or nervous, as the same feeling will surely show in the child.

"Mothers should be very careful about using baby foods. The majority of these preparations contain large quantities of starch, which fattens and makes a child look very healthy, but it does not give the resisting qualities that a child should have. How often a mother will tell you of the sudden death of her most healthy child. I believe in most cases the fat, healthy child dies because it has been fed on just such food.

"For the first year of its life the baby is nothing more nor less than a little animal; therefore, let it eat, grow, and sleep."

HOW TO RUIN BABY'S NERVES.

THE little baby, sick or well, is dependent upon its mother or nurse for everything needful to sustain its life and preserve its health. It cannot protest against ill usage, nor explain when misunderstood. In too many families the baby is thought to exist simply for the amusement of its relatives and any familiar friends of the family. They are to be amused and entertained by his cunning ways and remarkable speeches, and he is urged to show off at every opportunity. How often have I felt impelled to take upon myself the defense of the helpless little one, and protest against the refinement of cruelty which impels grown-up people to poke the baby in the ribs, tickle his toes, pinch his cheeks, etc., all for the purpose of enjoying the cute little laugh that follows from "mamma's darling," "papa's pet," and "auntie's tootsie wootsie."

The evening is often the time for the greatest onslaught of demands on babyhood. Papa has been away all day, and this is the only time he has to get acquainted with his offspring. It is a time of comparative leisure for all the friends of the family, and so each and all drop in and dandle and fondle the baby and talk to and frolic with him. Half an hour before all this, the little eyelids were closing over the sleepy eyes, and baby was going off to rest with the chickens, lambs, and other young animals. Now he is wide awake, and every nerve is on extreme tension, every tired muscle must be whipped up to put forth its utmost effort, and feet, hands, and all parts of the body are moved in every direction as he becomes a professional acrobat, clown, and trained animal, to be exhibited for the amusement of an exacting, thoughtless group of grown-up children, who think more of being entertained for the moment than of all the coming life of the helpless baby. Yet these same parents, owners of fine young horses, sheep, chickens, or even pigs, would not rush into the stables, sheep-pens, hen houses, or pig stys, and set the colt galloping around the stables; scare the lambs so that they scamper terrified around the pen; pull the chickens off the roost, and toss them up in the air to see how high they could fly, or how loud they could cackle; or even disturb the well-fed, plump little pigs, tucked cosily away in the dry, warm straw for a good night's rest. Nor would it be healthy amusement for the mischievous urchin across the way, were he to find amusement by stirring up, exciting, and annoying his neighbor's stock, should they catch him at it. Take a lesson, O mothers and nurses, from the care and pains a good farmer takes to defend his young animals from being injured or

subjected to any cause likely to check their physical growth, and hinder their development into perfect animals. Be as vigilant in the defense of your own God-given offspring as a farmer is of his stock, remembering that they have mental and moral natures that may be as badly deformed as their physical bodies.

As the processes of nature in the development of the young animal must be let alone in order for it to grow into a perfect creature, so must the nurse or mother, after having supplied all the baby's wants, know when to let it alone. Let it alone when it ought to go to sleep in the evening, and it will not cry and fret with colic, or start with night terrors. Feed it at regular hours, and keep it scrupulously clean, neat, and dry, and leave it alone in a safe place to amuse itself. It will thus acquire self-reliance, and will never be tempted to become an infantile despot, the terror of the family. Let it alone when it begins to creep, only taking care that it does not get cold from drafts on the floor, by clothing the extremities warmly and having the room at an even temperature in cold weather. Let it alone when it begins to raise itself by chairs and tables. Do not tempt it to walk until nature has prepared bone and muscle strong enough to sustain the weight of the body and maintain perfect symmetry. Always be careful to use proper language when conversing before the little one and in speaking to it, and refrain from teaching it strong phrases and smart speeches, to enable it to show off before the neighbors. Let it alone when you are tempted to teach it tricks and habits which cannot in after years be driven out by the best and most approved methods described by Solomon. Do not fasten it, day after day, for hours at a time, in a high chair or baby-jumper, its feet dangling in the air, and the sensitive spine put upon a strain to support the body in a fixed position until the tired muscles become exhausted, and spinal curvature, more or less serious, results, and the pelvis and lower extremities are engorged with venous blood from its position. As good nursing means simply supplying the helpless with the necessaries of life and health, make an effort to have the baby's nerves spared by procuring for him the necessary letting alone.

It is during the first seven years of life that the greatest amount of brain growth and development takes place. Slight nervous irritation often gives rise to violent nervous symptoms, as the convulsions due to stomach disorders or cutting teeth, or the onset of some acute disease. In this day and age, when nervous disorders are so prevalent, it is very important to save the rising generation from the results of bad heredity by proper protection and education which tends to eradicate all acquired or inherited bad habits, and work to save, instead of to destroy, the nervous system.

IT often happens that drinking water is very impure, and contains much matter which it is important to get rid of before disinfecting by boiling. A few strands of candle wick, a piece of cheesecloth, or any other clean cloth which has been washed, as a clean towel, may be improvised as a filter. Provide two vessels, the one containing the water to be filtered placed above the receiving vessel; place one end of the cloth or wick in the vessel above, and let the other end hang over the lower vessel. As the water is descending from the upper to the lower vessel, the cotton fibers will entangle the suspended matter, and the water, as it drops into the lower vessel, will be freed from much of the dirt which it contains. The water can then be boiled and made comparatively wholesome for drinking water. This method of filtering is useful in tenting, where wholesome clean water is not at hand.

KEEPING the children from moral and physical contagion is the privilege of the parents, especially the mother, but how often the mother not only permits, but even compels, the little ones to risk infection from foul, loathsome disease germs. "Mary, now don't be a naughty girl; kiss Mr. J.; he is a nice gentleman." Thoughtless guardian of infantile helplessness! Did you but know the fascinating Mr. J. as well as his medical adviser knows him, nothing would tempt you to allow your darling to take the risk she takes in submitting to his caresses and fondling, to say nothing of robbing her of her inborn natural childish modesty.

SCRATCHES made by finger nails, and also those of cats and other carnivorous animals, are always more or less dangerous, because of the inoculation with infectious germs which is liable to follow. Such wounds should always be thoroughly cleansed by hot boiled water, and dressed antiseptically with absorbent cotton or clean white rags sterilized by heat. The same treatment should be used for all bites from dogs, cats, or mice, even if not mad; they eat putrid flesh, and their mouths and teeth may be foul.

GOOD HEALTH
J·H·KELLOGG·M·D·EDITOR·
BATTLE CREEK·MICHIGAN·

INCREASE IN THE AVERAGE LENGTH OF HUMAN LIFE.

THE question has been asked, how we reconcile former statements of ours, made to the effect that there is a general failure in human health taking place in all civilized countries, with the well-recognized fact that all vital statistics, including those employed by life-insurance companies, show that there has been, during the past fifty years, a steady and remarkable increase in the average longevity of human life in all civilized nations, both in cities and in the country, owing to a better knowledge of sanitary laws?

The two facts are reconciled in this way: Two centuries ago, the average duration of life in Geneva, Switzerland, was only about 23 years, but it has been increased to 40 years by a better administration of the laws of hygiene, and the same is true of all civilized countries. There has been a notable increase in this average length of life because the great epidemics which formerly prevailed, — cholera, the plague, "black death," etc., — are now prevented by quarantine. But we have also, as I have often before stated, a decrease in individual vital stamina and vigor.

A local physician asserted that when the plague prevailed in one of the cities of the South of France, drunkards were carried off like flies. And it was said that when the yellow fever prevailed in Jacksonville, Florida, the drunkards died like sheep. When these plagues become epidemic in the various parts of the country, they weed out the weak, the intemperate, the vicious; this is nature's way of carrying out the principle of the "survival of the fittest;" the healthiest, strongest, and best survive, while the weakest and the worst go to the wall.

Now by enforcing the laws of health, by quarantine, persons who have constitutional weakness, — who have inherited weaknesses, and diseases tending to constitutional weakness, — drunkards, and feeble persons are all kept alive by a better understanding and a public enforcement of the laws of hygiene. They also intermarry and their diseases are thus propagated; disease is propagated by disease.

Thus while the average of human life is increased, the strength, stamina, and vigor of the race is continually undermined; and this state of things will go on, unless individual hygiene is connected with public hygiene. Each individual must develop himself so as to overcome hereditary tendencies, observing the laws of health so as to make himself strong, and in this way only can individual physical superiority be developed. Simply keeping the weak and vicious alive by quarantine regulations, only increases the tendency toward physical deterioration in each individual, and consequently toward the deterioration of the race.

In England, the number who have died of late at the age of 100 years, is much less than it was fifty years ago. In Germany, it is remarkable how the number of centenarians has decreased within the last fifty years. Statistics show that there has been a decrease in this class of old persons, of two or three hundred per cent in proportion to the population, within the last thirty, forty, or fifty years. This proves the truth of my statement, — that the stamina of the race has been decreased. There are a number of ages recorded in England, of 126, 130, and 140 years. There have been some in this country. But now if a person lives to the age of one hundred, it is considered a remarkable thing. This clearly shows that the race is deteriorating; and it is deteriorating because we do not give better attention to individual hygiene.

PROLAPSED COLON.

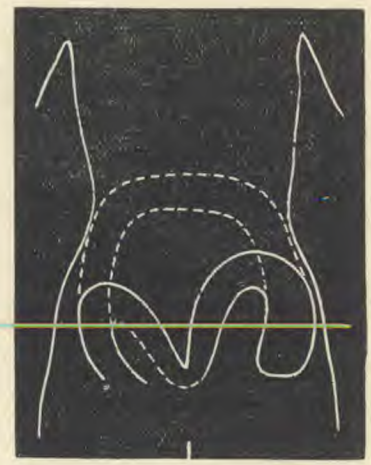
After several years' study of this subject, and careful comparison of our results with those obtained by European investigators, we feel convinced that this matter is one which requires the careful consideration of every medical man who wishes to practice medicine in accordance with rational principles. The educated physician of the present time does not confine himself to doses, and does not apply his remedies empirically, but stands upon the broad foundation afforded by modern physiological and pathological research, and is able to give the reason for his medical faith and medical practice.

We are confident that no one pathological condition figures more largely in the causation of a vast number of nervous symptoms, which, grouped in various ways, are treated as primary diseases, than does the disturbance of the sympathetic nervous system resulting from displacement of the right kidney, the stomach, the colon, and other abdominal viscera. The prolapse of these organs puts under strain the filaments of the abdominal sympathetic which supplies them, and the irritation transmitted from these strains, and hyper-sensitive branches, brings the whole sympathetic into a morbid condition, and through it, the spine and cerebrum become in like manner affected.

Gastric neurasthenia is, unquestionably, chiefly dependent on morbid conditions growing out of dilatation of the stomach and prolapse of the abdominal viscera. Probably nine tenths of the cases of insomnia find in this morbid condition the efficient cause which maintains the morbid nervous state, in spite of all the hypnotics which can be employed. Migraine, or nervous headache, and the great variety of neurotic symptoms so frequently observed, especially in women, may be traced, in a great majority of cases, to the same cause.

Those who have not made a careful study of this subject will doubtless be more or less skeptical in relation to it. It is indeed almost impossible for one to credit his own observations in some cases, so extraordinary are the conditions of displacement which are occasionally met. But the methods of diagnosis of the morbid conditions relating to the abdominal viscera have, within recent years, been so perfected as to enable us to pursue our investigations in relation to these organs with the same degree of precision and scientific exactness as in the physical diagnosis of the organs of digestion.

Abdominal surgeons have an excellent opportunity to test the correctness of these observations. Recently the writer observed a case which is worthy of mention: In making an abdominal section for the removal of diseased appendages in a case of double pyosalpinx, the colon was found prolapsed to such a degree that the middle of the transverse colon lay in contact with the lower portion of the sigmoid flexure. The condition of the colon was that outlined in the accompanying figure. We, of course, improved the opportunity of restoring the colon as nearly as os-



sible to its normal state, and with it, the prolapsed stomach which had been dragged down by it so that the lower border of the stomach was found several inches below the umbilicus. This condition of the colon often gives rise to symptoms which lead to the suspicion of stricture in the bowel. No organic stricture exists, but a pseudo-stricture which has resulted from the folding of the gut.

It is to be hoped that American teachers of clinical medicine will more generally acquaint themselves with the facts which are now known in relation to this important subject, so that the rising generation of doctors may start out with a better understanding of how best to deal with otherwise puzzling and complicated cases in which the various degrees and varieties of enteroptosis are now known to play the chief role as regards causation. —*J. H. K., in Modern Medicine and Bacteriological World.*

EATING BEFORE SLEEPING.

A FRIEND sends us the following extract from the Philadelphia *Times*, with a request that we say something on the subject in the columns of GOOD HEALTH: —

"Many persons, says Dr. W. T. Cathell, an eminent physician, though not actually sick, keep below par in strength and general tone, and I am of the opinion that fasting during the long intervals between supper and breakfast, and especially the complete emptiness of the stomach during sleep, adds greatly to the amount of emaciation, sleeplessness, and general weakness we so often meet.

"All beings, except man, are governed by natural instinct, and every being with a stomach, except man, eats before sleep, and even the human infant, guided by the same instinct, sucks frequently day and night, and if its stomach is empty for any prolonged period, it cries long and loud.

"Digestion requires no interval of rest, and if the amount of food during the twenty-four hours is, in quantity and quality, not beyond the physiological limit, it makes no hurtful difference to the stomach how few or how short are the intervals between eating, but it does make a vast difference in the weak and emaciated one's welfare to have a modicum of food in the stomach during the time of sleep, that instead of being consumed by bodily action it may during the interval improve the lower system, and I am fully satisfied that were the weakly, the emaciated, and the sleepless to nightly take a light lunch or meal of simple, nutritious food before going to bed for a long period, nine in ten would be thereby lifted into a better standard of health."

The above paragraphs, and, we are sorry to say, most newspaper paragraphs relating to health, are full of error. We will notice a few of the most conspicuous and dangerously erroneous of the numerous false and unscientific statements of which the writer in the *Times* is guilty: —

1. The idea is presented that fasting, even for so short a period as the interval between night and morning, is an unhealthful and even dangerous practice. The writer seems to be ignorant of the experience of Dr. Tanner and Dr. Griscom, who fasted forty and forty-two days, respectively; and of the Italian faster, who, under test conditions in London, abstained from food more than sixty days, and apparently without other injury than a temporary loss of flesh. The writer has had recently under observation and treatment a patient who voluntarily abstained from food as a means of reducing obesity, for three weeks, taking only two very small meals during this entire period, and without any apparent loss of strength, although there was a very satisfactory falling off in flesh.

The body does not depend so immediately and constantly on food taken into the stomach as is generally supposed. The food taken in the morning, for example, is not assimilated and utilized in building up the body and replenishing its forces until many hours later. In fact, it may be even the next day before new food supplies taken into the body are utilized. Physiological investigations recently made, show that the process of digestion in the intestines occupies many hours, fourteen hours having elapsed in a case of intestinal fistula, which gave an opportunity for a minute observation, before the food taken into the mouth passed from the small intestines into the colon. The sense of satisfaction and comfort which ordinarily follows immediately after eating, is not due to the strength derived from the food eaten, but to the quieting of the nervous disturbance resulting from the clamors of appetite.

The Indian on the western plains, when he misses a meal, silences the demands of his empty stomach by taking up a notch in his belt, repeating the process for several days in succession when food cannot be obtained. This method of satisfying the appetite

is certainly not one to be recommended, nevertheless the fact that the Indian is able to continue his arduous pursuit of the game which has eluded him, or his hasty retreat from an enemy under such circumstances, is evidence that the immediate utility of food is not so great as is commonly supposed.

2. The idea has also prevailed that it is dangerous for one to allow his stomach to become empty.

This reminds us of the experience of an acquaintance who in order to justify himself in the unwholesome and unseasonable gratification of his appetite, misquoted his physician as having said to him that it was dangerous to allow the walls of his stomach to come together, and that he had firmly resolved never to allow such a thing to happen. His practice was certainly quite in harmony with this idea, and it is not surprising that nature visited upon him most distressing ailments of the stomach and liver as punishment for his infraction of her laws.

Complete emptiness of the stomach and complete rest from digestive activity at proper intervals, is essential to the maintenance of a healthy stomach. When in full activity, the contents of the stomach are extremely acid,— so acid in fact that if placed in contact with the unprotected skin of the arm, for example, the irritating effects would soon become apparent by the reddening of the surface. A physiologist made the following experiment, which indicates very clearly the remarkably active properties of gastric juice: An opening was made into a dog's stomach. Through this opening the hind legs of a frog were introduced, the animal being secured in such a way that its legs could not be withdrawn from the stomach. At the end of a few hours the legs of the frog were found to have entirely disappeared, having been dissolved by the gastric juice of the dog. The mucous membrane of the stomach possesses the power to protect itself from the corrosive action of the gastric juice, and yet when the gastric juice is long in contact with the stomach, after a time it loses to some degree its power of resistance. It is in this way chiefly that catarrh of the stomach, ulceration of the stomach, and possibly also cancer of the stomach are produced.

The stomach needs rest as well as every other organ of the body. It is a muscle as well as a secreting organ. When not occupied in the digestive process, its muscular walls continually contract upon the contents, manipulating and mixing the food substances with the digestive fluid, conveying the food from the stomach into the intestines, and forcing it out from time to time as the digestive process of the stomach has been completed.

When the stomach is kept continually occupied with digestive work, the mucous membrane becomes irritated by the too prolonged contact with the corrosive gastric juice, its secreting glands become exhausted, and its muscular walls become fatigued. Thus the entire stomach becomes exhausted by the prolonged effort required of it, and diseases of various sorts result. When food is habitually introduced into the stomach at too frequent intervals, so that the organ is kept constantly occupied with the digestive process, its walls become relaxed, and after a time lose their power to contract fully, and a latent dilatation results; after a time, positive dilatation, and even a sacculated condition of the stomach is produced, a state which is practically incurable, although by appropriate treatment the last-named condition may be considerably ameliorated.

The practice of taking food at frequent intervals is thus seen to be a most pernicious one. A careful study of the physiological rhythm of the digestive process shows that when taking an ordinary quantity of food, and such food as constitutes the ordinary bill of fare, it is practically impossible to eat physiologically, more than twice a day. From six to seven hours should intervene between the meals. This allows but two meals a day. If an additional meal is taken, the food should be very small in amount and of the most digestible character possible, such as a glass of milk or kumyss, a small quantity of fruit, or something of a similar character.

Many years spent in studying this and allied subjects, with wide opportunities for observation and an extended experience, have convinced us that the practice of eating twice a day is in every way preferable to a larger number of meals. This was the practice of the ancient Greeks,— indeed the earliest Greeks ate but once a day. The one-meal-a-day plan is still practiced by most savage tribes, while semi-civilized people, such as the three hundred millions of India, the teeming millions of China, and the multitudes of Persia, Siam, Burmah, and other Oriental countries, eat but two meals a day. The natives of South America eat but twice daily. The same is true to a large extent of the people of France and Spain. But two meals a day are furnished the soldiers of the French army, and only two meals are provided the patients in the hospitals of Paris.

The idea of eating but two meals a day is by no means so novel nor so revolutionary a notion as many people imagine. It is, in fact, only the English and American people who are so much given to frequent and excessive eating. The Italian peasant boy is quite content with his breakfast of boiled

chestnuts taken about nine o'clock in the morning, and his dinner of maccaroni with stewed tomatoes and a little Graham bread taken at six P. M. The idea that there is danger of a man's starving to death or becoming greatly emaciated if his stomach is allowed to remain empty between daylight and dark, is a most preposterous notion.

There is just about as much physiological sense in this idea, as in that entertained by the old gentleman who came home late at night after his wife had retired, and finding no pies accessible in the pantry, shouted out to his good wife, who was soundly sleeping upstairs, "Mary! Mary! where's the pie?" In a regretful voice Mary replied, "John, I am very sorry indeed, but there is no pie in the house." Again came the demand, "Mary, where is the cake?" With a still more regretful tone Mary confessed that there was no cake in the house. At this the good man shouted in most reproachful tones, "Mary, dear! what *would* you do if somebody should be sick in the night?"

A gentleman with whom the writer was acquainted many years ago was so thoroughly convinced of the danger of allowing his stomach to get empty, that he habitually made his good wife arise regularly at midnight to prepare him a dinner, which he ate with a relish, returning at once to bed. It is almost needless to say that the good woman was long ago relieved of the necessity for providing these midnight meals, her husband having died of indigestion and consequent ills long before he had reached the age of natural decrepitude and decay.

The idea that "digestion requires no interval of rest," is a monstrously erroneous one, as is also the statement that "it makes no hurtful difference to the stomach how few nor how short are the intervals between eating." If the writer of this paragraph should say to the busy blacksmith, "It makes no difference, sir, how few nor how short are the intervals which you allow to rest the arm which swings your heavy hammer," the blacksmith would doubtless reply that he was quite convinced to the contrary by his experience. The stomach is no more intended by nature for incessant activity than is a muscle or a brain. Even the heart, which seems to work continuously, really rests between its beats, and depends upon these regular though short intervals of rest for the maintenance of its working power.

3. It is true that hungry babies often cry long and loud, but most frequently it will be found on investigating the history of such children, that their bad behavior is the result of wrong education. Children probably cry as often from too much feeding as from the want of food. Very often, too, the child cries because its system requires water, not food.

The idea that the stomach will consume itself or injure itself by its own activity if not filled with food, is the veriest moonshine. The idea that the stomach is an all-devouring monster, which, like the serpent in the story, may turn and swallow itself, has not the remotest foundation in fact. There are cases of disease in which the glands of the stomach secrete gastric juice continually, instead of only when stimulated to activity by the presence of food. In such cases the patient experiences great inconvenience whenever the stomach is emptied of food, for the reason that the gastric juice attacks the mucous membrane of the stomach, irritating and corroding it, and in time, if relief is not obtained, gives rise to gastric ulcers. In these cases temporary relief is obtained by taking food, or in fact by swallowing water, milk, or any other bland liquid. The simple dilution of the gastric juice affords relief to the smarting mucous membrane. This is an abnormal state of things, however, and such cases must not be made the basis of recommendation to persons in ordinary health, nor even to an ordinary invalid, nor the ordinary dyspeptic, since cases of the sort mentioned are quite rare. The frequent taking of food, while giving temporary relief, surely aggravates the disease.

The "all-gone feeling" which many persons experience when the stomach becomes empty, should not be interpreted as indicating the necessity for food, since it is merely an indication of congestion and weariness of the stomach. The mucous membrane is irritated by the too prolonged contact of the gastric juice, and when the irritated surfaces come in contact, discomfort naturally results. An interesting fact which we long ago observed in relation to these cases, is that persons who retire at night with a very pronounced "all-gone feeling," find on arising in the morning that the "all-gone feeling" has disappeared; the "goneness" is gone. The stomach is rested, the congestion has disappeared, the irritated nerves are quieted, and the uncomfortable sensation which was supposed to be the demand for food, has been cured by rest and abstinence, rather than by the imposition of more work upon the already overworked and diseased organ.

A few grains of common sense in matters pertaining to diet, as well as other matters of hygiene, will aid very greatly in arriving at correct and safe conclusions.

ANSWERS TO CORRESPONDENTS.

EFFECTS OF QUININE.— M. G. G., Iowa, wishes to know: "1. What are the injurious effects of quinine, when taken for some time,— say twenty-four grains per day for four or five weeks? 2. Is it more harmful when taken by outward application, mixed with lard? 3. Does the nurse who applies it in this way get its effect sufficiently to do her any injury?"

Ans.—1. Quinine is eliminated by the kidneys. It is also acted upon by the liver. When taken in so large a dose as indicated, for several weeks, it would be likely to derange the action of both kidneys and liver more or less. We can hardly imagine a case in which such a use of the drug could be beneficial.

2. No.

3. No.

DRIED FRUITS BLEACHED BY SULPHUR.—B. M. H., Minn., asks: "1. Does not the bleaching of drying fruits by sulphur account for the generally insipid taste of such dried fruits? 2. Can you inform me where dried fruits may be obtained which are rich in hydrocyanic acid?"

Ans.—1. Probably yes.

2. No.

TOBACCO SMOKE A CURE FOR CONSUMPTION, ETC.— N. F. D., Tenn., writes: "The following is clipped from a communication made to an American health journal, by a physician of some eminence. What do you think of it?"

"I do not remember that one of my consumptive cases was a habitual smoker of tobacco. My reflections on this subject led me to suggest that tobacco smoke, as inhaled daily and almost hourly by the habitual smoker, retards or prevents the development of the bacillus tuberculosis in the larynx and lungs of the smoker, as it has been demonstrated to prevent the development of the bacilli of typhus fever and pneumonia."

Ans.— Either the physician's observations have been very limited or he has failed to inquire of his patients respecting their habits as regards smoking. We have met many cases of tuberculosis, or consumption of the lungs, in men who have been habitual smokers for many years. There is no evidence whatever to show that tobacco is a preventive of this disease; but if true, the enormous damage done by this drug would be in nowise atoned for by its possible utility in preventing one or several diseases. The fact that more men than women die of consumption, notwithstanding the fact that nearly all the smoking is done by men, is sufficient evidence of the fallacy of a theory which seeks to bolster up the use of the filthy weed by attributing to it a value as a germicide. Any drug which will kill germs is still more fatal to human beings.

SALICYLIC ACID — ENLARGEMENT OF FINGER JOINTS.— Mrs. J. A. J., Mich., wishes to know: "1. Is the use of salicylic acid as an antiseptic agent in fruit canning harmful? 2. What is the cause of enlargement of the upper joints of the fingers, accompanied with considerable soreness? 3. Is it a kind of rheumatism? 4. How ought it to be treated? 5. How may a person ward off consumption, when a consumptive tendency has been inherited?"

Ans.— 1. Yes; the practice is one which must be strongly condemned.

2. The condition described is incipient rheumatism. The observations of Dr. Bouchard, an eminent French physician, have shown this affection to be almost invariably connected with dilatation of the stomach.

3. Yes.

4. The cause of this condition is decomposition of food substances in the stomach in consequence of their being too long retained, and the development of poisonous substances which are absorbed into the blood and poison the tissues. Local remedies alone are of no value, neither can we recommend the medicinal agents usually prescribed for patients suffering from rheumatism. The most important measure to be adopted is careful regulation of the diet. The food must be carefully masticated and such substances as cheese, meats, especially fat meats, free fats of all sorts, pastry, and all indigestible foods, must be carefully avoided. The cure in such a case requires more thoroughgoing treatment than can be readily undertaken at home. We advise this patient to visit a good sanitarium.

5. By improving the general health to the highest degree of vigor and giving special attention to the development of the breathing organs.

FLOOR POLISH.— "A Subscriber" asks for the best method of polishing a floor, and the cost per square foot.

Ans.— The best polish for a floor is wax. The following formula we have seen tried with good results: —

To eight ounces of beeswax add half a pint of turpentine, heat in a double boiler until thoroughly dissolved, then add one half pint of turpentine, and allow it to cool. When it is cold, add three pints of turpentine. This wax should be applied with a brush, the same as varnish. The temperature of the room should be from 70° to 80°. After allowing this to dry for one hour, rub the floor briskly with a cloth or weighted brussels brush, such as is used for polishing.

BAD TASTE IN MOUTH, WEAKNESS, TREMBLING, ETC.— Mrs. E. C., Wis., writes: "I have a bad taste in the mouth in the morning, feel very weak, and tremble so that I can with difficulty control myself; have bad breath, pain in the chest, in the right side, and in the back of my head, also in the throat, which has continued for two years. Do you think I have dyspepsia? I drink hot water several times a day, and am careful as to diet, using hot milk, Graham bread, fruit, and occasionally vegetables."

Ans.— The patient is evidently suffering from dyspepsia— very likely from hyperpepsia. She should have an analysis of the stomach fluid made and a careful prescription for diet. She could spend a few weeks with profit at a good sanitarium.

SWELLING ON NECK.— Mrs. W. J. K., Colo., writes that a lady friend has a swelling upon one side of the neck. It is very much inflamed, with slight discharge. Is this goiter? She has noticed that in "Monitor of Health" a low altitude is recommended for this disease. Is that the only remedy?

Ans.— The case is probably not one of goiter. We should not think a change of climate necessary in the treatment of goiter.

TOMATOES.— L. M. G., Mich., inquires: "Is the juice of tomatoes as nutritious as the pulp?"

Ans.— No.

RELIEF DEPARTMENT.

[THIS department has been organized in the interest of two classes: —

1. Young orphan children, and
2. The worthy sick poor.

The purposes of this department, as regards these two classes, are are follows: —

1. To obtain intelligence respecting young and friendless orphan children, and to find suitable homes for them.

2. To obtain information respecting persons in indigent or very limited circumstances who are suffering from serious, though curable maladies, but are unable to obtain the skilled medical attention which their cases may require, and to secure for them an opportunity to obtain relief by visiting the Sanitarium Hospital. The generous policy of the managers of the Medical and Surgical Sanitarium has provided in the Hospital connected with this institution a number of beds, in which suitable cases are treated without charge for the medical services rendered. Hundreds have already enjoyed the advantages of this beneficent work, and it is hoped that many thousands more may participate in these advantages. Cases belonging to either class may be reported in writing to the editor of this journal.

It should be plainly stated and clearly understood that neither orphan children nor sick persons should be sent to the Sanitarium or to Battle Creek with the expectation of being received by us, unless previous arrangement has been made by correspondence or otherwise; as it is not infrequently the case that our accommodations are filled to their utmost capacity, and hence additional cases cannot be received until special provision has been made.

Persons desiring further information concerning cases mentioned in this department, or wishing to present cases for notice in these columns, should address their communications to the editor, Dr. J. H. Kellogg, Battle Creek, Mich.

☞He wishes especially to state that those who apply for children will be expected to accompany their applications by satisfactory letters of introduction or recommendations.]

A BAND OF FOUR.— Here comes a band of four boys (NOS. 189–192), to claim our attention and sympathy. Their ages are three, nine, ten, and eleven. They all have dark eyes and auburn hair. With the sad life they must have lived, they have not had the right kind of training, and hence will need careful watchcare from those who undertake their rescue. Has not some good Christian heart faith enough to take one of these lambs of the fold and bring him up for God? Surely the promise of grace and wisdom sufficient is not alone for those who minister to children who seem most promising. God alone knows what destiny awaits any one of his little ones.

No. 198 is a little boy who has lost his mother and father, and has been living with his grandparents. They are very old, and cannot take proper care of him longer, so desire that a home be found for him. He is nine years of age, has dark eyes and light hair, and is of fine appearance. Here is an opportunity for some real missionary work, for this little fellow has been quite neglected.

TWO SISTERS (NOS. 199 and 200).—Word from Pennsylvania tells of two little girls, aged six and eight years respectively, who have been left without a mother's care, and their father is desirous of placing them in good homes. They have dark eyes and hair, are intelligent looking, and have had good training.

TWO DAKOTA BOYS (Nos. 201 and 202).— We have received the description of two boys who are sadly in need of a home. They have not known a father's care for six years, and their mother is no longer able to support them. The older, eleven years old, has black hair and eyes; the younger, ten years of age, has brown hair and blue eyes. They have had good training, and the greater part of the time they have spent in the country.

No. 203 is a boy living in Michigan, who is in need of a home. He is eight years old, has blue eyes and light hair, and is truthful, industrious, and obedient. Surely some home will be made brighter by his presence.

FANNIE (No. 204).— This little girl with bright blue eyes and light hair, who has been living with an aged relative, is in need of a kind mother's care. She is nine years old, and is now living in Pennsylvania.

ERWIN (No. 209), is a bright, pleasant looking boy only six years old. His father is dead, and the mother is very poor and living among strangers, so the child is left in the world with no friend to care for him. He is now in Michigan. What family will welcome him as one of their number?

ALFRED (No. 213), a boy five years old living in the State of New York, is fatherless and his mother in poor health is left without means of support. He has blue eyes and black hair. Will some home in the Eastern States open its doors to receive this boy while his character is yet unformed?

A FATHER who is away from his motherless boy (No. 216) is anxious to find a home for him in some good family, where he can have the surroundings of a pleasant home and will receive Christian care and training. This boy is now living in Pennsylvania. He is eleven years old, and has gray eyes and light hair. He likes to go to school, learns readily, and is said to have good traits of character.

No. 217 is a nine-year-old boy living in Indiana. He has dark blue eyes and dark hair, is said to be obedient, and has had good care. Last winter his

father died, leaving his mother with no means of support, and he has no friends who are able to care for him. Will some family receive him as their own, and still direct his feet in the right way?

No. 218 is a healthy Swedish boy only four years old, living in Minnesota, who has no one to care for him. At the present time he has a temporary home, but he cannot remain in this place long. He has brown hair and eyes, and is said to be an intelligent little fellow. He would surely cheer some home, should a kind mother bestow upon him her love and care.

No. 231 is another Michigan boy. He is but nine years old, and is left in the world with no one to care for him but the county authorities, as his mother is dead and his father has deserted him. He has dark blue eyes and brown hair, and is said to be kind, easily governed, and has fine sensibilities. Who will offer a home to him who is worse than an orphan?

WORD has come from Colorado telling us of a thirteen year old boy (No. 232) whose father is dead. His mother desires to place him in some home, but does not wish to give up full control. He has brown eyes and hair, and has not been allowed to run the streets. Will some one offer this boy a home for a few years?

Is there not some good home in the Southern States where a twelve-year-old boy (No. 233) can find parents? This boy's father and mother are both dead, and just at this age he surely needs to be surrounded with good influences and to receive kind advice and encouragement, so that he may grow to be a useful man. He has black eyes, and is said to be intelligent and in good health.

FOUR more children have been placed in homes. No. 215 has gone to Pennsylvania to live. Those who have given her a home, write that they are well satisfied with her, and that they would be very lonesome without her. No. 205, whose former home was in Michigan, has found a good home in New York. Nos. 143 and 144 have been placed in homes in Kansas.

A LADY, who is undoubtedly a friend of orphans, living in one of the Western States, tells of the case of a little boy whom she has taken into her home. The child is but eight years old. His father is dead, and his mother has deserted him. We quote the following from her letter: "As there seemed to be no one to care for him, duty seemed to say, Take him and care for him, and we have done so, and he seems so happy that he has found a home. We will do by him as though he were our own. We now have a girl and a boy of the Lord's poor, but we will take another girl just as soon as we can. We have only three children of our own, and the youngest is twenty-one years old. Perhaps we can do as much good by caring for some of the poor homeless ones as in any other way. I have never done much for the Master, and I do not want to come before him empty-handed."

PERSONS making applications for children advertised in this department, are requested to send with their applications the names and addresses of two or more persons as reference. If possible these should be known, either personally or by reputation, to some member of the Board of Trustees.

CLOTHING FOR THE POOR.

THE call for clothing of all kinds and the numerous offers to supply assistance of this sort, have led us to organize a Clothing Department to receive and properly distribute new or partly worn garments which can be utilized for the relief of the very poor. In connection with this work it is very important that a few points should be kept in mind and carefully observed: —

1. Clothes that are so badly worn that repairs will cost more in money or labor than the garment is worth, will of course be of no service. Garments that are old, though faded, or which may be easily repaired by sewing up seams, or made presentable by a few stitches judiciously taken in some point in which the fabric is nearly worn through, may be utilized to most excellent advantage. But garments so badly worn that they need extensive patching, or clothes which have become much soiled and grimy by long use in some dirty occupation, should find their way to the rag bag instead of the missionary box.

2. Freight must always be prepaid. It costs as much to send 25 pounds or any amount less than 100 pounds as to send the full 100 pounds; consequently it would be well for those who think of sending clothes to be used in this department, to put their contributions together in one shipment, so as to get the benefit of the 100-pound rates. *We are obliged to ask that freight should be prepaid as a means of preventing loss to the work in the payment of freight upon useless packages.*

3. Clothes that have been worn by patients suffering from any contagious disease — such as typhoid fever, erysipelas, consumption, and skin d[illegible]ts, as well as scarlet fever, measles, mumps, di[illegible], and smallpox — should not be sent. Infected clothes may be rendered safe by disinfection, but we cannot trust to the proper disinfection of such garments by those sending them, who, in the majority of cases, are quite inexperienced in such work; neither should those who unpack the clothe be exposed to the risk of contamination while preparing them for disinfection at this end of the line. Such clothes should, as a rule, be destroyed. If they are not destroyed, almost infinite pains are required to render their use perfectly safe.

4. All articles received here are carefully assorted and classified, and are then placed as called for where they will do the most good.

5. Clothing intended for the Chicago Medical Mission should be sent to 40 Custom House Place, Chicago, Ill.

LITERARY NOTICES.

BEDS AND BEDROOMS.— This is the title of a very able and useful paper which appears in the February number of the *Sanitarian*, the leading sanitary journal of the United States, edited and published by A. N. Bell, A. M., M. D., one of the most experienced sanitarians in the country. Dr. Bell is not only well versed in public hygiene, but also in all that pertains to the hygiene of the home. In this interesting article he considers the bed from the standpoint of the leading nations, ancient and modern, and goes into the subject in a most thorough manner. The time spent in the bedroom is normally about one third of the entire life, and it is evident that the conditions to which the body is subjected during sleep must have a highly important influence upon the health and longevity.

Dr. Bell has received so many requests for copies of the paper that he has promised to publish it in pamphlet form. Any of our readers who desire it can obtain copies by addressing A. N. Bell, A. M., M. D., Brooklyn, N. Y.

THE *Quarterly Illustrator* for April, May, and June, is filled with good things, pictures and text, original work, offered by some of the brightest writers of the day. There are brief, clever papers by George Parsons Lathrop, Henri Pene du Bois, Alexander Black, John Gilmer Speed, Elizabeth W. Champney, George Wharton Edwards, Charlotte Adams. Painters whose pictures are reproduced and life work lightly touched upon, include William M. Chase, Stanley Middleton, E. M. Bicknell, George H. Boughton, Frank De Haven, Harry Fenn, Aymar Pezant, and Alfred Paris. A rapid review of art events is contributed by Charles de Kay.

THE May *Arena* closes the ninth volume of this leader among the progressive and reformative reviews of the English-speaking world. The table of contents is very strong and inviting to those interested in live questions and advanced thought. The *Arena* has made steady progress, its circulation having increased during the panic, and it has necessarily been enlarged to one hundred and forty-four pages. There are, also, in addition to this, the book reviews, which cover over twenty pages, making in all a magazine of over one hundred and sixty pages. The steady increase in circulation of this $5 magazine during a period of unprecedented financial depression shows how deep rooted and far reaching is the unrest and social discontent; for this review has steadfastly given audience to the views of the social reformers of the various schools of thought.

EACH successive number of "The Book of The Fair," by Hubert Howe Bancroft, lets us more and more into the plan of the work, which is such, while avoiding too lengthy description, as to cover the entire ground with sufficient detail, and present in permanent form all the characteristics of the great Exposition. The Bancroft Company, Publishers, Rooms 30, 31, and 32, Auditorium Building, Chicago.

THE *Literary Digest* for April is exceptionally full of information and papers of a wide range and great interest. It is also liberally illustrated. $3 per year; 10 cents per copy at newsstands, or of the publishers, Funk and Wagnalls Company, 18 and 20 Astor Place, New York.

WILLIAM R. JENKINS, of New York, is about to publish a work entitled "The Foot of the Horse," by David Roberge, who was closely associated with Mr. Robert Bonner for twenty-five years in his study and practice of the art of horseshoeing. In this work lameness and all diseases of the foot are traced to an unbalanced foot bone, and Mr. Roberge declares that all lameness and diseases may be prevented or cured by simply balancing the foot. The work will be fully illustrated, showing improved methods of shoeing horses.

MESSRS. ALLEN and Sachtleben, the young adventurers who encompassed the world on their bicycles, have written a graphic account of their remarkable journey from Constantinople to Peking, and this will be published in the *Century*, beginning with the May number. They met with many curious and startling adventures, and these they tell with simplicity and modesty, as if they were not unusual episodes in the rounding out of a college education. They took more than 2500 photographs of scenery and phases of life that curious European eyes had never looked upon before, and many of these will be reproduced. The young men served, in a measure, as the advance couriers of American progress. They bore the "stars and stripes" strapped to the handle-bars of their bicycles, to people who learned for the first time of its significance.

PUBLISHERS' DEPARTMENT.

THE Battle Creek Sanitarium has had a very successful winter, the family of patients, nurses, and attendants numbering at no time less than 550, and for the most part of the time reaching above 600. The constant improvements in the facilities and methods of this institution, secure to it an increasing success in its work for the relief of the suffering, and a constantly enlarging patronage. There is probably no medical institution in the world where so large an array of facilities and appliances, and so great a variety of methods, are to be found available for the treatment of chronic diseases.

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THERE are now nearly 300 students in the Medical Missionary Training School. The school comprises various departments, as follows: Medical Students, Missionary Nurses, Missionary Mothers, Kindergarten Work, Cooking School, School of Midwifery, and a large number of special courses. None are received into these schools except those who are preparing themselves for some branch of missionary or philanthropic work under the direction of the Board of the S. D. A. Medical Missionary and Benevolent Association, which has the general supervision of the Sanitarium and its various branches in this and other countries.

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ON his recent trip to the Pacific Coast, the editor of this journal had the pleasure of visiting the Sanitarium at St. Helena, under charge of Drs. W. H. and Hattie S. Maxson, who were formerly connected with the Sanitarium at this place. The institution was found in a prosperous condition. Many improvements have been made within the last two years, under the present management, and others are in progress. The Sanitarium enjoys a large and growing patronage of the very best class of people. The most gratifying thing observed in connection with the institution was the large number of intelligent and earnest young men and women who have been gathered in to receive instruction in nursing and the various branches of medical missionary work. A spirit of enterprise, contentment, and good cheer pervaded the place. The institution at St. Helena is most charmingly located on the side of Howell Mountain, overlooking a most lovely valley, and enjoys advantages as regards location and salubrity of surroundings superior to those of any other institution on the Pacific Coast with which we are acquainted. We know of no place which we can so cordially recommend to the patronage of sick people requiring sanitary advantages.

The managers of the St. Helena Sanitarium have shown great enterprise in the preparation of a most unique and attractive exhibit at the Mid-winter Fair. The essential feature of the exhibit is a miniature model of the mountain side and the institution located upon it. A series of dolls representing patients and nurses illustrates many of the methods of treatment and nursing employed in the institution. The exhibit was by many declared to be one of the most interesting features of the Fair.

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OUR friends residing in Nebraska will be glad to learn that arrangements are being perfected for the establishment of a branch Sanitarium at Lincoln, Neb. Mr. A. R. Henry, for many years a friend to hygienic principles, and long a member of the Sanitarium Board of Directors, has donated a fine building and land connected with it, located in College View, one of the suburbs of Lincoln, for the purpose of a Sanitarium. A committee is now on the ground, and arrangements will be perfected as rapidly as possible to open this institution as a branch of the Battle Creek

Sanitarium, under the general direction of the Board of the S. D. A. Medical Missionary and Benevolent Association. There is every prospect that the enterprise will be a success from the start.

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BY recent letters from Dr. Wood, the physician of the Medical Mission recently established at Guadalajara, Mexico, by the S. D. A. Medical Missionary and Benevolent Association, we learn that the work there has already attained large proportions, and an unexpected degree of success. The Doctor states that she has recently received ninety patients, women and children, in one forenoon. The need of medical missionary work in Mexico is very great, and it is hoped that before many years have passed, a similar work may be established in many other cities of the Republic. Though in name a civilized country, Mexico is as much a field for missionary work as any foreign country can be.

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WE are glad to have word that the three missionary nurses recently sent to South Africa to engage in medical missionary work in that country, have reached their destination in safety, and are already entering upon active work.

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THE Sanitarium School of Domestic Economy, which was started a number of years ago and was successfully conducted for a few years, but which has for the last two or three years been so completely overshadowed by the great development of the Sanitarium Medical Missionary Training School, is to be revived in the near future. It is now hoped that arrangements may be made to open this school by the first of June. The school is to be gradually improved in all its features, as better facilities for instruction in the various departments have been procured. The new young ladies' dormitory contains a number of fine class rooms which have been planned with especial reference to this work. Extended accommodations for the cooking school have been supplied, so that at the present time 100 persons can receive instruction simultaneously.

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THE cities of Los Angeles, San Diego, and San Francisco, California, can be reached comfortably and quickly via the Santa Fé Route from Chicago, St. Louis, and Kansas City. Vestibuled trains with through sleepers and free chair cars leave these cities daily for all important points in the west and southwest. Persons contemplating a visit to the Mid-Winter Fair cannot do better than to write to C. A. Higgins, Assistant General Passenger Agent, Monadnock Building, Chicago, for rates and free copies of this company's beautifully illustrated books of travel.

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ANSWERS TO CORRESPONDENTS.— FARMER.— Yes, South Dakota furnishes an excellent field for diversified farming. Wheat, corn, barley, and flax are produced in abundant quantities and find a ready market at good prices, while the cost of production is much less than in the Eastern States. Stock raising and wool growing have become successful industries in South Dakota, where thousands of acres of the finest land in the United States can be secured at reasonable figures and upon long time for deferred payments. Further information will be cheerfully furnished free of expense by addressing Harry Mercer, Michigan Passenger Agent, 82 Griswold Street, Detroit, Mich.

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160 WORLD'S FAIR PHOTOS FOR $1.—These beautiful pictures are now ready for delivery in ten complete parts — 16 pictures comprising each part — and the whole set can be secured by the payment of One Dollar, sent to GEO. H. HEAFFORD, General Passenger Agent, Chicago, Milwaukee & St. Paul Railway, Chicago, Ill., and the portfolios of pictures will be sent, free of expense, by mail to subscribers.

Remittances should be made by draft, money order, or registered letter.

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"WHERE FARMING PAYS."— Is it in the Northwest, with wheat at less than 50 cents a bushel, with zero weather, and blizzards in winter and cyclones in summer? — No! Go to Virginia; land is cheap, climate perfect all the year round. Ask any one who knows, and he will tell you that in the tidewater section one acre of land has produced as high as $2000 in one season.

It is worth looking into. Apply to C. H. Bovee, Gen'l Land and Excursion Agent, Coldwater, Mich., for pamphlet, "Facts for Farmers," free. No statements are made that are not corroborated by practical farmers who have grown rich on their Virginia farms.

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"MORE FACTS" is a handsomely illustrated fifty page pamphlet issued by the Chicago, Milwaukee & St. Paul Railway Company, giving valuable information on Agriculture, Sheep Raising, Climate, Soil, and other resources of South Dakota. It also contains a correct map of North as well as South Dakota.

Every farmer, and in fact every one interested in agriculture, etc., should have a copy of it. Sent free to any address upon application to Harry Mercer, Michigan Passenger Agent, 82 Griswold St., Detroit, Mich.

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WHERE TO LOCATE NEW FACTORIES.

THIS is the title of a 150-page pamphlet recently published by the Passenger Department of the Illinois Central Railroad, and should be read by every mechanic, capitalist, and manufacturer. It describes in detail the manufacturing advantages of the principal cities and towns on the line of the Southern Division of the Illinois Central, and the Louisville, New Orleans, and Texas Railroads, and indicates the character and amount of substantial aid each city or town is willing to contribute. It furnishes conclusive proof that the South possesses advantages for the establishment of every kind of factory, working wool, cotton, wood, or clay. For a free copy of this illustrated pamphlet, address C. C. Power, Foreign Representative, 58 Michigan Ave., Chicago, Ill.

The "Columbia Bicycle Habit"

BELIEVING *that if ladies better understood what to wear awheel, more wheelwomen would engage in the incomparable sport of cycling, we have had designed especially for us, by Redfern of New York and London, the accompanying stylish and graceful costume called the COLUMBIA BICYCLE HABIT. It is made from a pretty, light-weight, unshrinkable tweed, which does not show the dust. The sleeves are very loose, give plenty of room to the rider, and the skirt is made quite full, giving it a most graceful effect when mounted. Whether mounted or dismounted, the costume is equally attractive and comfortable, and we believe it will meet with general favor among cycling ladies everywhere.*

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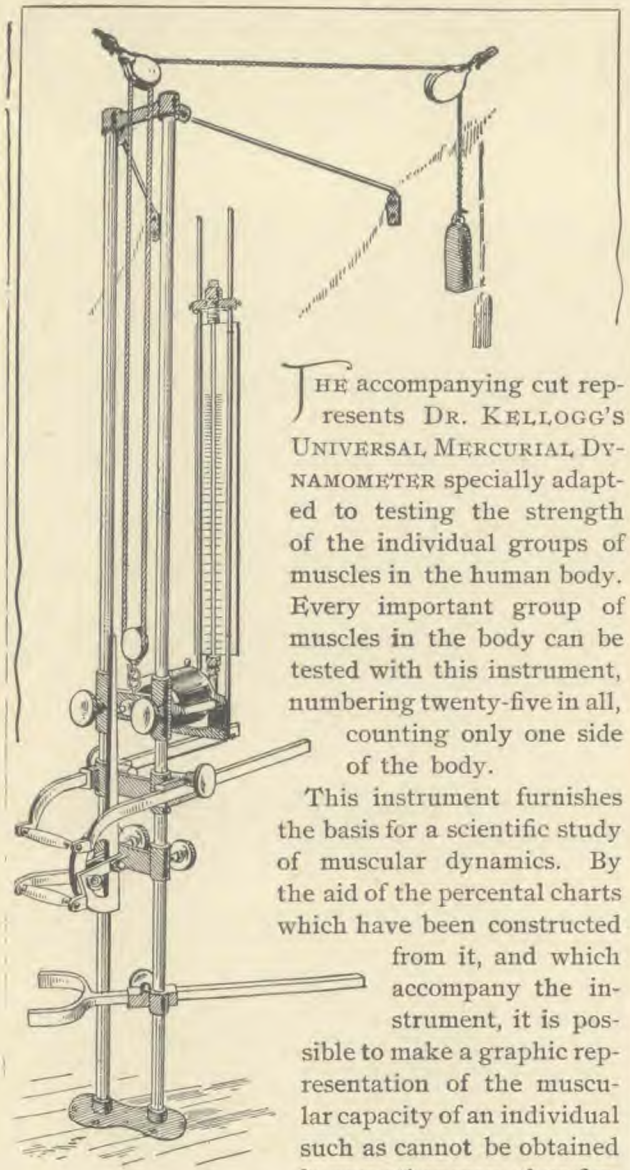

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THE SANITARIAN is filled with articles of scientific interest and practical value. It would be difficult to plan a better professional magazine than this, which is to the medical world what the *Scientific American* is to the artisan world. It deserves a greatly increased circulation. —*Baltimore Methodist.*

THE SANITARIAN is not only an interesting magazine to the specialist and the medical man, but it is of high value to thickly settled communities, to homes, to general readers, to city authorities—indeed, we would place the journal, for public good, in the hands of every adult, believing that misery and suffering would thereby be lessened and human happiness augmented by the knowledge the journal disseminates. —*Sacramento Record-Union.*

TERMS:

$4.00 a year, in advance; 35 cents a number; sample copies, 20 cents—ten two-cent postage stamps.

The SANITARIAN is published as hitherto, in New York. **THE AMERICAN NEWS COMPANY, General Agents.** Newsdealers will get their supplies from them.

☞ All correspondence and exchanges with the SANITARIAN, and all publications for review, should be addressed to the editor,—

Dr. A. N. BELL, Brooklyn, N. Y.

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Plain Oatmeal Crackers	10	*Gluten Wafers*	30	*Granola (bulk 10)*	12
No. 1 Graham Crackers	10	*Rye Wafers*	12	*Gluten Food No. 1*	50
No. 2 Graham Crackers	10	*Fruit Crackers*	20	*Gluten Food No. 2*	20
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