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GOOD



HEALTH

CONDUCTED
BY

J. H. KELLOGG M.D.

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By **J. H. KELLOGG, M. D.**

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BATTLE CREEK · MICHIGAN ·

SEPTEMBER, 1895.

BIOGRAPHICAL HEALTH STUDIES.

BY F. L. OSWALD, M. D.,

Author of "Physical Education," "The Bible of Nature," etc.

20. Thomas Huxley.

THE author of "Positive Philosophy" proposes to dedicate each Sunday of the year to the memory of some great teacher of mankind; and his followers should revise their list of latter-day saints to make room for the name of George Combe, who devoted a lifetime to the inculcation of the important and still strangely ignored truth that the moral, mental, and physical laws of the universe act independently of each other, and that a surplus of merit in one respect cannot be made to offset a demerit in another. The gods of the storm demolish the frail steeple of the holiest church as swiftly as the turret of a Turkish seraglio, and spare the stout walls of a robber's stronghold as they would spare the solid masonry of a convent. When King Louis the Second, of Hungary, engaged the army of Sultan Solymán at Mohars, he relied on the protective influence of his numerous acts of piety, which, indeed, would have secured him the votes of his orthodox subjects against the rivalry of any pretender, but on the field of battle his followers were dreadfully defeated by the better-drilled, though less sanctified, troops of the Turk, and the Tartar arrow aimed at the King's neck, severed his windpipe in spite of his amulet-collar. Lord Byron's matchless genius failed to protect him from the penalties of a moral transgression, or its mere suspicion; every envious dunce of the Three Kingdoms joined in the hue and cry, rejoicing in the chance to mask his spite under the cloak of superior piety, and the author of Childe Harold had to share the fate of his homeless hero.

The philanthropist Howard succumbed to a jail-fever, and Professor Huxley, the apostle of science and mental liberty, to the lung-microbes of a lecture hall, to an infection of disease germs generated in an atmosphere of the very prejudices which the lecturer labored to dispel. Could nature not avert so untoward a fate from her most zealous evangelist? Or did she wish to point a lesson by a specially memorable illustration of her inexorable methods?

The great scientist seems to have underrated his peril in that one respect, though his appreciation of health as the supreme earthly blessing was demonstrated in 1885, when he resigned six different offices of honor and emolument, in order to gain time for recreation trips. It is also certain that no illustrious man of the nineteenth century was less apt to be swayed by an undue regard for the bias of public opinion. If Henry Buckle, in his "History of Civilization," did not underrate the influence of skepticism as a factor of intellectual progress, Huxley's mental condition could not have been developed under happier auspices. He was born in 1825 at Galing, a few miles west of London, where his father taught a private school and laid the foundation of his son's habit of dissent by calling his attention to the baneful effects of several widespread vices, including the tobacco habit, which appears to have become epidemic among the manufacturing population of Paddington parish. Nicotine fume was the bugbear of the Huxley household, artisans smoked on the scaffold of their new attic, and visitors in their parlor and even some of their pupils were caught

defiling the atmosphere of the school-room. Young Thomas, with his father's special permission, tried a cigar and was made deadly sick. Some of his schoolmates had contracted a chronic lung-affection by smoking away all their pocket-money; so there could be no doubt that the evil effects of the habit outlasted its development into a "second nature." And yet the prevalence of the folly was made a constant argument for its defence. "Won't you try this new pipe? Why not? What's the matter with you? Why! Everybody smokes!" Master Tom said nothing, but drew his own conclusions.

The proprietor of a Paddington hotel employed two Chinamen whose conservatism in matters of wearing apparel excited the merriment of the neighboring youngsters, and the hotel keeper—a relative of the Huxleys—stated that their dress prejudices were a mere trifle compared with the absurdities of their creed, with its doctrines of world-renunciation and contempt of secular knowledge—though its converts exceeded a third part of the world's population. "Four hundred millions," mused Thomas H., "more than the entire population of Europe, devoted to such nonsense," and pondering all those facts, came to the conclusion that the universal acceptance of a tenet cannot be considered the slightest proof of its correctness.

That bias of thought once established, the young skeptic soon went further, and began to doubt the competence of public opinion in regard to all sorts of matters, such as the wisdom of eating our food smoking hot, and the necessity of wearing broadcloth in midsummer. A Scotch visitor's argument in favor of the highland custom of letting children run barefoot, likewise suggested reform plans with anticipations of what the Germans call the Kneip-cure,—Father Kneip's method of rendering his patients catarrh proof by making them wade bare-legged in a dew-drenched meadow.

But the difficulty of rising above a general prejudice is illustrated by the fact that Huxley junior reached his twenty-sixth year before he conceived a serious doubt of the beneficent effects of alcohol stimulants. His boyhood preceded the period of the British Temperance Movement by a quarter of a century, and in Paddington parish, beer-drinking was so universal that a youngster might just as well have doubted the wholesomeness of his daily bread, and would have been apt to class hints of teetotalism with the crotchets of the vegetarian extremists, who object to cow's milk and eggs—the nectar and ambrosia of our Darwinian relatives. He recalls his disgust at the behavior of a drunken neighbor who

staggered into his father's library, but also recollects a scene on one of the first British railways, where a distinguished-looking tourist helped his young son to a bottle of claret, and his regret at his inability to indulge in such luxuries. Huxley senior preached the doctrine of temperance in all things, and indulged his children in an occasional mug of ale without ever suspecting the possible progressiveness of the habit.

Luckily for his boy's prospects in life, his temperament inclined him to dispense with the aid of artificial irritants. He was extremely nervous, and the sting of a trifling injustice could goad him into a fever—a moral diathesis which, by the way, has distinguished more than one prominent reformer,—a keen sense of justice being closely allied to the love of truth and the consequent hatred of shams. Ulrich Hutten, the son of a German baron, was so incensed at the oppressive despotism of a feudal abbot that he became physically sick (though the victims were obscure rustics of a neighboring principality), and could not recover till he devoted his existence to a campaign of reform, and Joseph the Second, of Austria, actually died because the dead-weight conservatism of his subjects thwarted his plans of national regeneration.

True to his principle of testing his theories in the crucible of experience, young Huxley began to experiment for a remedy of the complaint which his father's physician described as constitutional *asthenia*, or general debility, and found that outdoor exercise agreed with him much better than chemical tonics. His desire to apprentice himself to a civil engineer came near proving a *casus belli*, but the emphatic protests of his father finally prevailed upon the restless boy to enter the medical school of Charing Cross College. With a diploma once in his pocket, argued the old teacher, the young M. D. could indulge his love of outdoor life to his heart's content, and soon acquire the means to survey roads and canals on a farm of his own.

But the pale-faced student longed to bathe in the sunlight of a brighter climate, and immediately after completing his medical course, applied for the position of assistant surgeon on board of H. M.'s ship "Rattlesnake," commissioned to survey the intricate channels of the Great Barrier Reef that skirts the coast of Australia for a distance of eleven hundred miles.

There were other candidates, but indisputable proof of superior fitness obtained the place for the young graduate, who had been a naturalist at the age of sixteen, and had already begun to contribute

to the scientific periodicals. In his anxiety not to miss the rare chance, he went down to Portsmouth to have a personal interview with one of the commissioners, and on receipt of his definite appointment passed an afternoon in day-dreams, revelling in the vistas of a promising career.

The "Rattlesnake" had a considerable list of tasks on her program, and for four long years the young doctor could maintain a cavalcade of his personal hobbies, absorb sunlight within ten or twelve degrees of the equator, drink the pure breezes of the Coral Sea, dress in a loose suit of the lightest linen, and collect curios till the annexes of his museum crowded out the ship's ballast, and his colleague left to him the exclusive management of the natural history department of the expedition.

They passed the first twelve months among the reefs of Charlotte's Bay, and before the end of the year, Dr. Huxley had bribed most of the deck hands to substitute chewing for smoking tobacco and catch him all the nondescript crustaceans crawling about the coral labyrinth of the sunny coast.

He also experimented for antidotes of seasickness, but confesses that drugs merely substituted a chemical for a mechanical basis of misery, and that the best prophylactics are cold sponge baths applied to the spine and "a day's fast in the Lenten sense," *i. e.*, abstinence from flesh food on the eve of a storm. The danger of sunstroke had lost its terrors for him, before he had been six months in the tropics. "Lime-juice and light dinners," was his recipe when the thermometer mounted into the nineties, which he admits to have been an almost daily occurrence in 1847, from October to March (the tropical summer), the maximum having been 118° Fahrenheit on the afternoon of February 10, in the shade of a canvas awning. "I preferred to keep such records to myself for the time being," he says in his diary extracts, "lest the sick, lame, and lazy would make it a pretext for malingering, and felt satisfied that no difference in their personal comfort would make them suspect the truth as long as the breeze kept the bunting a-flutter." He also quotes an anecdote from the memoirs of a colleague who nipped a typhoid-like epidemic by mixing with the drinking water a few grains of common magnesia, and, indeed, frequently betrays an inclination to ascribe medicinal success to faith cure influences, — "the tendency that constitutes the redeeming feature of miracle-working shrines," as he once adds with his characteristic refinement of irony.

In November, 1849, the "Rattlesnake" scudded two days with reefed sails before a tropical tornado, and

Huxley does not deny that he was "sick enough to get homesick," though one chief element of his distress was the dread of his museum boxes being flung overboard in stress of weather. To forestall such possibilities he began to avail himself of every opportunity to ship small cargoes of specimens home, and also sent numerous contributions to the scientific periodicals of his native land. Some of these communications attracted the attention of the learned societies "so largely represented on an island, depending on indoor pastimes," as Hippolyte Tain explains them, and on his return in 1851, the learned surgeon was made a fellow of the Royal Society, and of the British Association for the Advancement of Science. His addresses and lectures on the marvels of deep-sea life revealed his talent as a popularizer of science, and in 1854 he resigned his position in the navy to succeed Professor Edward Forbes, of Mediterranean exploration fame, as professor of natural history in the Royal School of Mines. A few years after he was elected Hunterian professor in the Wealthy Royal College of Surgeons, and could not help admitting that his father's prediction had been abundantly verified. Before the completion of his thirtieth year he had become the most popular English lecturer on scientific topics, and found no difficulty in saving three fourths of his income.

His services as an expounder of science were soon in universal request, and his mental equipment for that task has, indeed, never been excelled and rarely equaled. Like Tyndall, he could fascinate an audience of working men as well as a committee of learned specialists, and his talent for ridiculing superstitions without overstepping the limits of decorum has made his style a model for controversial dissenters; he was a past master of what Thomas Jeffrey called "the art of proving the folly and rascality of your opponent without ever calling him a fool or a rascal."

His *mental* equipment, I say, for as early as 1868 the lionized lecturer, then in his forty-third year, found that the glories of public oratory had to be purchased at the expense of his respiratory organs. Speaking in crowded lecture halls made him hoarse and sore-throated, and he could not help noticing that the affection worked its way lung-ward. He was troubled with chronic coughs, and anxiously watched for that ominous indication of pulmonary decay: the spitting of blood. Hemorrhage from the lungs, however, is not an invariable symptom of their waste, and there appears to be a form of tuberculosis that destroys the pulmonary tissue by a purulent disintegration, and from time to time deludes

its victims with promises of respite; the sputa diminish and there may be weeks and months without an appreciable cough, although the existence of the smothered fire is proved by flagrant relapses upon the most trifling provocations: a night passed in a crowded railway-car, or a brief visit to a sickroom, while the system is under the depressing influence of grief or disappointment. And that intermitted affliction is always liable to malignant complications. Between 1868 and 1875 Professor Huxley had several attacks of bronchitis and catarrhs of that severe febrile type that cannot readily be distinguished from influenza. He tried various cough palliatives, such as simple syrup, taken hot before bedtime and in the morning, and hoped to have lessened his liability to catch cold by a course of hydropathy; but did not obtain decided relief till he applied for an all-round vacation and accompanied his friend Tyndall on a trip to the Alps.

The first bivouac in the Oberland appeared to have remedied his dyspnea or chronic disability to get a sufficient allowance of life-air by ordinary methods of respiration; and at Interlaken, in sight of the Jungfrau peak, he felt so well that Dr. Remely, of Lucerne, urged him to make Switzerland his permanent home. That advice haunted him for years, but like Gulliver, he was tied down by a multitude of little strings that he could not burst without violence to the feelings of his fellow-islanders. But he enjoyed his vacation so much that he negotiated an extension of his furlough, and utilized his time by interesting memoranda on the social and sanitary peculiarities of the mountain-republic, besides his professional observation on the structure of glaciers.

What struck him as the most remarkable evidence of a superior climate, or else of exceptionally hygienic habits of home-life, was the robust appearance of the women, as compared with those of Scotland or such French mountain districts as the Jura and the Cevennes. "I know instances," he says, "of delicate-looking mothers giving birth to athletes, but hereditary vigor transmitted from both sides of the parent stock can hardly fail to imply a superior promise of health and longevity." He comments on the sensible custom of letting girls share the outdoor labors of their brothers—"why not, when they are physically and morally the better for it?"—vexation-proof good humor being a characteristic of the Swiss woman, at least in the pastoral regions.

A very different effect he traces to the climate of the United States where he lectured in 1876, but came to learn, as well as to teach. An at-

tendant of his lecture at the Johns Hopkins University called his attention to the tradition of a Chinese visit to the American continent, which they called the "Land of the white-headed women," and asked him if that peculiar designation could possibly refer to the white-faced Capuchin-monkey, of the Peruvian forests. "I didn't suppose your fourhanders were big enough to be mistaken for troglodytes," said Huxley; "at all events the 'Land of tall men' would have been a more appropriate description. How this keen air makes your hunters grow, in Kentucky as well as in Patagonia!"

In 1884 Huxley had an attack of pleurisy that revived his longing for a permanent abode among the Alps, and he would perhaps have invested his savings in a little orchard farm on the shore of Lake Lemman if he had not been restrained by the reflection that his days were probably numbered, and that he had yet a good deal of work to do. After his partial recovery, he did work away with feverish energy, revising proof sheets by the quire and writing prefaces to new editions of his works, in order to answer objectors and forestall misunderstandings. For similar purposes he also published a series of magazine articles, but soon realized the truth that he had overtaken his strength, and in a fit of contrition relinquished half a dozen of his official positions, including the presidency of the Geological and Ethnological societies, and the professorship of physiology in the Royal institute.

The leisure thus gained he devoted to the redemption of his health, but also, in stress of sore provocation, to duellos in the arena of theological controversy, followed by a series of polemic treatises that came very near involving him in a blasphemy suit. The Duke of Argyle called his doctrine "a modern Pyrrhonism," though the pessimist Pyrrho denied the competence of human reason in regard to astronomical problems, geology, and biology (*i. e.* Huxley's pet studies), as well as to hyperphysical speculations in the theosophical sense of the word. It is true though, that Huxley's doxy was chiefly negative, "agnostic," as he preferred to call it, and that he did not encourage the current ideals of a religion of nature. "Let us understand once for all," he said, "that the ethical progress of society does not depend on imitating the cosmic process, still less in running away from it, but in combating it. The theory of evolution encourages no millennium visions. If for millions of years our globe has taken the upward road, yet sometime the summit will be reached, and the downward route will be commenced. The most daring imagination will

hardly venture upon the suggestion that the power and intelligence of man can ever arrest the procession of the great year."

Huxley also held that there is such a climax in the life of individuals, and that after a certain age, in spite of the perhaps increasing favor of external circumstances, the afflictions of existence necessarily begin to outweigh its pleasures.

The consciousness of having passed that culminating point may have reconciled him to the unmistakable approach of the end when, about the beginning of last March, an attack of influenza was followed by bronchitis and an affection of the kidneys.

The man who, next to Charles Darwin, knew perhaps "more about the ways of his Mother Nature

than any other child she ever had," took his leave of this world, without more than transient reveries on the doctrine of metempsychosis, but with frequent musings on the methods by which the term of his usefulness, and consequent enjoyments, in the present incarnation could possibly have been prolonged—in other words, how public speakers can evade the risk of being devoured by the lung-microbes of a mixed audience.

Has Dr. Richardson, of the London Board of Health, approached the solution of that problem in his plan of compulsory ventilation? or was it anticipated by Plato, who slept in an open hall and delivered his lectures in the gardens of Academus?

(To be continued.)

A STRANGE APPETITE.

ONE of the most common arguments in favor of the use of tea, coffee, and tobacco, is, that the appetite is a widespread one, hence it must be natural, and that the use of these substances must satisfy a natural demand. From the following facts compiled by the *Scientific American*, clay-eating, or dirt-eating, by the same argument may be shown to be a natural and wholesome practice:—

"Of this practice, which would appear to have once prevailed all over the world, numerous examples were cited by Captain J. G. Bourke, U. S. A., in the Ninth Annual Report of the Bureau of Ethnology. In some places, the custom has degenerated into a ceremonial, while in others the eating of this strange food still prevails as a kind of necessity to the lives of those who are addicted to it.

"The Mexican devotees picked up a piece of clay in the temple of Tezcatlipoca and ate it with the greatest reverence, and also ate a piece of earth in swearing by the sun and earth. But the use of clay by the Mexicans was not merely a matter of ceremony, for the substance seems to have been an esculent in common use. Edible earth was sold openly in the markets of Mexico, and appears in the list of foods given by Gomara.

"Cabeza de Vaca says that the Indians of Florida ate clay, and that the natives offered him many mesquite beans, which they ate mixed with earth. Venegas asserts that the Indians of California ate earth. The traditions of the Indians of San Juan Capistrano and vicinity show that they had fed upon a kind of clay, which they often used upon their heads by way of ornament. The Tatu Indians of

California, according to Powers, mix red earth into their acorn bread to make the latter sweet and cause it to go farther. Sir John Franklin relates that the banks of the Mackenzie River contain layers of a kind of unctuous mud, which the Tinneh Indians use as food during the seasons of famine, and even at other times chew as an amusement. It has a milky taste and the flavor is not disagreeable. The Apache and Navajo branches of the Athabaskan family of North American Indians are not unacquainted with the use of clay as a comestible, although among the former it is now rarely used, and among the latter is employed only as a condiment to relieve the bitterness of the taste of the wild potato. In the same manner it is known to both the Zuni and the Tusayan.

"In South America, likewise, the eating of clay prevails among the Indians on the banks of the Orinoco, throughout Brazil, and on the mountains of Bolivia and Peru.

"In Western Africa, the negroes of Guinea have long been known to eat a yellowish earth called by them *caouac*, the flavor and taste of which is very agreeable to them and said to cause them no inconvenience. Some addict themselves so excessively to the use of it that it becomes to them a real necessity, and no punishment is sufficient to restrain them from the practice of consuming it.

"When the Guinea negroes were in former times carried as slaves to the West India islands, they were observed to continue the custom of eating clay. But the *caouac* of the American islands, or the substance which the poor negroes attempted to sub-

stitute in their new homes for the African earth, was found to injure the health of the slaves who ate it, and so the practice was long ago forbidden and has possibly now died out in the West India colonies. In Martinique, a species of red earth or yellowish *tufa* was formerly secretly sold in the markets, but the use of it has probably ceased in the French colonies also.

“In Eastern Asia a similar practice prevails in various places. In the island of Java, between Sourabaya and Samarang, Labillardiere saw small square reddish cakes of earth sold in the villages for the purpose of being eaten. These were found by Ehrenberg to consist for the most part of the remains of microscopic animals and plants which had lived and been deposited in fresh water. Some of the Japanese, too, are addicted to the practice of eating earth. Dr. Love, some time ago, published an analysis of a clay which is eaten to a considerable extent by the Ainos; it occurs in a bed several feet thick in the valley of Tsietonai (eat-earth valley) on the north coast of Yesso. It is light gray in color and of fine structure. The people mix with the clay fragments of the leaf of some plant for the aromatic principle it contains. They eat the earth because they think it contains some beneficial substance, not because it is a necessity with them. They have meat and abundance of vegetable food. The clay is eaten in the form of a soup. Several pounds are boiled with lily roots in a small quantity of water, and afterward strained. The Ainos pronounce the soup very palatable.

“In the Runjut Valley, in the Sikkim Himalayas, a red clay occurs, which the natives chew, especially a sa cure for the goiter.

“In ‘Smyth’s Aborigines of Victoria,’ it is stated that a kind of earth, pounded and mixed with the root of the ‘mene’ (a species of *Hæmadorum*), is eaten by the natives of West Australia.

“In Northern Europe, especially in the remote northern part of Sweden, a kind of earth known by the name of ‘bread meal’ is yearly consumed by hundreds of cart loads, it is said. A similar earth is commonly mixed with bread in Finland. In both these cases, the earth employed consists for the most part of the empty shells of minute infusoria in which there cannot exist any ordinary nourishment.

“Some of the Siberian tribes when they travel carry a small bag of their native earth, the taste of which they suppose will preserve them from all the evils of a foreign sky. We are told that the Tunguses of Siberia eat a clay called ‘rock marrow,’ which they use mixed with marrow. Near the Ural Mountains, powdered gypsum, commonly called ‘rock meal,’ is sometimes mixed with bread. The Jukabiri of Northeastern Siberia have an earth of a sweetish and rather astringent taste, to which they ascribe a variety of sanitary properties when eaten.

“In North Germany, on various occasions where famine or necessity has urged it (as in long protracted sieges of fortified places), a substance called ‘mountain meal,’ similar to that used in Sweden and Finland, has been employed to stay hunger.

“According to Pliny, the Romans had a dish called ‘alica’ or ‘frumenta,’ made of the grain *zea* mixed with chalk from the hills of Puteoli, near Naples.

“According to the myths of the Cingalese, their Brahmins once fed upon the earth for the space of 60,000 years.”

SANITARY INSTINCTS.

OUR natural instincts not only never encourage, but strenuously resist, the incipience of every stimulant-vice. An unaccustomed child shrinks with horror from the taste of alcoholic beverages and the fumes of burning opium. The first cigar demonstrates the virulence of nicotine by vertigo and sick headaches. Nature records her protests in the most unmistakable terms, and only the repeated and continued disregard of that protest at last begets the abnormal craving of that poison thirst which pious blasphemers ascribe to the promptings of our natural appetites. They might as well make us believe in a natural passion for prison life because the victims of the Inquisition became so used to their

subterranean dungeons that they finally dreaded sunlight, and refused to accept the offer of freedom.

The unimpeachable testimony of instinct also clinches the physiological arguments against such doubtful delicacies as strong cheese, pickles, and all sorts of hot spices. Children would as soon share the repast of a turkey-buzzard as the lunch of a gormand who washes down a plateful of Limburger with a mug of ale—not to mention the *hautgout* steaks and absinthe tipples of French epicures. In the Färöe Islands famine has developed an unnatural passion for putrid fish, but the youngsters of those islanders are not apt to covet the tidbits of their elders as long as they can find a crust of barley-

bread, and the company cook of Fort Concho, Texas, once came very near getting his throat cut for offering a Comanche chieftain a dish of vinegar pickles.

A fit of anger, like the rage that envenoms the saliva of a tortured animal, may temporarily vitiate the gastric fluids, and instinct announces that fact by counteracting the desire for food, while the mind is convulsed with the fever of an intense excitement. "No dinner for me; that spoiled my appetite," says our choleric friend who has perhaps never read a line of theoretical hygiene, but whose inner monitor proves itself as reliable as the instinct that warns the Hindu against flesh food, and prompts the Eskimo to counteract the effects of a polar blizzard by enormous rations of walrus blubber. Arctic explorers have often marveled at the utter indifference of the native dug-out dwellers to the benefits of ventilation, while the equally un-

tutored Bedouin excels his Caucasian visitors in his horror of vitiated air — "a horror," says the traveler Burkhardt, "which makes the Arabs of the Hadramat loth to enter the tents, and even the camps, of foreign pilgrims." The physiological *rationale* of that contrast may be found in the fact that the all-penetrating frosts of the polar climate kill out disease germs that would rapidly develop in the sultry atmosphere of the tropics, and that the miasma engendered in the imperfectly cleaned tents of the Mecca pilgrims is really much more dangerous than that brooding (though never hatching) in the utterly unclean dens of the walrus eaters. The microbes of the Eskimo hovels, in fact, can be trusted like the young cannibals whom Governor Ojeda sent to Castile: "They scowl at us," said a Madrid cynic, "but they will never eat us if our winters continue to kill them off at the present rate." — *Felix L. Oswald, M. D., in Health Culture.*

HEALTH HABITS OF THE GERMAN EMPEROR. — According to Mr. Harold Frederic, the German emperor is a man of remarkable powers of endurance and of simple habits. He has very marked out-of-door tastes. He loves exercise for its own sake, fences admirably, is a skillful boatman, and delights in mountain climbing. What renders this the more remarkable is that his left arm is practically paralyzed, its only usefulness being to hold the reins when he rides. To have become a marksman under such a weighty disadvantage indicates great patience and determination. It is said that he is never in repose for an hour. From early morning till late at night he is at work. Both at home and abroad the amount of labor he performs in a day is almost without a parallel. It is a usual thing for him to do four hours' work in his Berlin study in the early morning, then take the train to Potsdam, and spend the remainder of the forenoon in reviewing his troops, then trot back in his saddle with his staff, a distance of eighteen miles; devote the remainder of the afternoon to the transaction of business with his ministers and officials; receive and return the calls of two or three visiting royal personages; then dine somewhere, where a speech must be made, and get back to the palace before bedtime. He lives a plain and simple life; his service and routine in the palace are those of an officer's mess.

MICHIGAN has passed a law fixing a heavy penalty upon railroad companies for the employment of persons addicted to the use of intoxicants.

It is the duty of every human being to be just as well as possible.

THE man or woman who prefers "a short life and a merry one" rather than to take care of the health, will be sadly disappointed. There is nothing joyous in a broken-down body with unstrung nerves. Such recklessness is its own avenger.

THE OLDEST MAN IN NORTH AMERICA. — Peter Arreola, who recently died at the age of one hundred and thirty years, at Tarimore, Mexico, was probably the oldest man in North America. He left two hundred and twenty living descendants, many of whom are prominent in Mexican affairs.

THE FIRST PATIENT. — Howard's father is a physician, and one day when the doctor was out, Howard and a little playmate were "playing doctor" in the real doctor's office. Presently Howard threw open a closet door and revealed an articulated skeleton to the terrified gaze of his playmate, but Howard himself was perfectly calm. "Pooh, Walter!" he said to his playmate, "what you 'fraid of? It's nothing but an old skellington!"

"Wh-wh-where did it come from?" asked Walter, with chattering teeth.

"Oh, I don't know. Papa has had it a long time; I guess it was his first patient." — *Harper's Young People.*

BE cheerful. "A light heart lives long."

THE COST OF FOOD IN DIFFERENT COUNTRIES.—The following statement respecting the annual cost of food per capita in different countries was recently compiled by the *Scientific American* from late statistics :—

An Englishman spends, on an average, \$48 a year for food ; a Frenchman, \$47 ; a German, \$42 ; a Spaniard, \$33 ; an Italian, \$24 ; and a Russian, \$23. Of meat the Englishman eats 109 pounds a year ; the Frenchman, 87 ; the German, 64 ; the Italian, 26 ; and the Russian 51. Of bread the Englishman consumes 380 pounds ; the Frenchman, 540 ; the German, 560 ; the Spaniard, 480 ; the Italian, 400 ; and the Russian, 635.

THE APPLE.—Nothing in all our varied and fascinating range of fruits holds quite the quality of the apple. A ripe raw apple at its best is digested in eighty-five minutes, and the malic acid which gives it its distinctive character, stimulates the liver, assists digestion, and neutralizes much noxious matter which, if not eliminated, produces eruptions of the skin. Apples do not satisfy like potatoes, complain people to whom they have been recommended as food, but the starch of the potato, added to the surplus of starch we are always eating, makes that vegetable a thoroughly undesirable standby. The more fruit we add to our dietary, the clearer brains and the clearer skin we are likely to have.—*Christian Work*.

THE LONGEST LIVED PEOPLE IN THE WORLD.—It has long been known that longevity is more common among Russians than any other class of Europeans. From an official report collated from well-authenticated local registers, it now appears that the government of Kieff takes the first place of all Russian provinces in this respect. During last year, it is officially stated, there were fourteen centenarian deaths registered in that government. In the city of Kieff one man died aged one hundred and ten years, while within the suburban circle, two women died aged respectively one hundred and two and one hundred and four years. In Berditcheff two men reached the respective ages of one hundred and one and one hundred and fourteen years. In Vassilkoff another patriarch died in his one hundred and fifteenth year. In the same district there died a Jewess aged one hundred and five ; in Svenigorodka, a man of one hundred and ten years ; in Tarastscha, another of one hundred and five ; in Uman, two men aged respectively one hundred and six and one hundred and two years ; in Radomytzel, a Hebrew

aged one hundred and seven and a Christian aged one hundred and three, and lastly a man of one hundred and five years died at Tcherkassy.

Here are fourteen persons dying within the same year and within the limits of one district, whose united ages amount to 1489 years. According to the Saratoff journals there is still in that government an ancient veteran of the First Napoleon's army, formerly Lieutenant Savin, and since 1812 known as Nicolai Alexandrovitch Savin, who has celebrated one hundred and twenty-six birthdays.

TOTAL abstainers command the most responsible positions in factories, mines, on railroads, and in all places where cool heads and steady nerves are needed.

BE GOOD TO YOURSELF.—Think deliberately of the house you live in, your body. Make up your mind firmly not to abuse it. Eat nothing that will hurt it ; wear nothing that distorts or pains it. Do not overload it with victuals or drink or work. Give yourself regular and abundant sleep. Keep your body warmly clad. At the first signal of danger from the thousand enemies that surround you, defend yourself. Do not take cold ; guard yourself against it ; if you feel the first symptoms, give yourself heroic treatment. Get into a fine glow of heat by exercise. Take a vigorous walk or run, then guard against a sudden attack of perspiration. This is the only body you will ever have in this world. A large share of the pleasure and pain of life will come through the use you make of it. Study deeply and diligently the structure of it, the laws that should govern it, and the pains and penalties that will surely follow a violation of every law of life or health.—*Set*.

CURE FOR STAMMERING.—A gentleman who stammered from childhood almost up to manhood gives a very simple remedy for the misfortune : "Go into a room where you will be quiet and alone, get some book that will interest but not excite you, and sit down and read two hours aloud to yourself, keeping your teeth together. Do the same thing every two or three days, or once a week if tiresome, always taking care to read slowly and distinctly, moving the lips, but not the teeth. Then, conversing with others, try to speak as slowly and distinctly as possible, and make up your mind that you will not stammer. Well, I tried this remedy, not having much faith in it, I must confess, but willing to do most anything to cure myself of such an annoying

difficulty. I read for two hours aloud with my teeth together. The first result was to make my tongue and jaws ache—that is, while I was reading—and the next, to make me feel as if something had loosened my talking apparatus, for I could speak with less difficulty immediately. The change was so great that every one who knew me remarked it. I repeated the remedy every five or six days for a month, and then at longer intervals till cured.”—*Sel.*

AN ALL-AROUND DOCTOR.—A Western paper publishes the following as a copy of an advertisement of a doctor located on one of the islands in Puget Sound:—

“Legs and arms sawed off while you wate, without pane. Childbirth and tumors a specialty. No odds asked in measles, hooping coff, mumps, or diarrer. Baldhead, bunions, corns, warts, cancer, and ingrowing tow-nales treated scientifically. Coleck, cramps, costiveness, and worms, naled on sight. Wring-worms, pole evil, shingles, moles, and cross eye cured in one treatment, or no pay. P. S. Terms: Cash invariably in advance. No cure, no pay. N. B. (Take Notis) No coroner never yet sot on the remanes of my customers, and enny one hiring me doan't hafta be layin up money to buy a gravestone. Come one come awl.”

A PROPOSAL has been made in New Zealand to photograph all habitual drunkards, and supply copies of these photographs to every retailer of alcoholic drinks, forbidding them, under penalty, to supply intoxicating liquor to any of the persons so photographed.

STUNTED BY TOBACCO.—Reclaiming children from a slow death by nicotine poisoning is a work which Mrs. Florence Keeley, the Illinois State factory inspector, has undertaken. She has discovered that over one thousand boys and girls are employed in cigar factories and tobacco-packing establishments in Chicago. Without exception, where the child has worked in the factory for any length of time his physical condition has been found most lamentable. The tobacco has affected his eyes; the skin is yellow, almost green from the effect of the nicotine, and there are disorders which medical examination has shown to prevail in eight cases out of every ten.

“The rooms in which they work,” said Mrs. Kelley, “are almost stifling with the strong smell of tobacco. Girls who strip the stems from the leaf

bend over their work with their faces close to the tobacco. In long rows at tables, divided into scores of compartments, sit girls who are rolling cigars. Some are employed in packing the goods. Most of those who have been employed in factories for two months or over have sore eyes. This is explained by the fact that when the children are tired and their eyes are weary, they habitually rub them with their hands stained with the nicotine, which causes irritation. For the most part the children are weak and puny. There is a noticeable depression of energy. The constant inhalation of tobacco causes dyspepsia, the action of the heart is affected, and the general physical condition of the tobacco-working children is far below the average.”—*Reformatory Record.*

THE chains of the drink habit are too small to be felt until they are too strong to be broken.

ALCOHOL AND RHEUMATISM.—One item in Sir B. W. Richardson's late report of his practice in the London Temperance Hospital refers to the treatment of rheumatism without alcohol. He says:—

“Out of seventy-one cases of acute or subacute rheumatism—the large majority acute, and attended with temperatures moving up to 104° F.—sixty-nine recovered, and two, although they were discharged without being put on the recovery list, were so far relieved that a few days' change in country air seemed all that was required to induce full restoration. Comparing the experience of the treatment of acute rheumatic disease without alcohol with that which I have previously observed with alcohol, I can have no hesitation in declaring that it is of the greatest advantage to follow total abstinence absolutely in this disease. The pain and swelling of joints is more quickly relieved under abstinence, the fever falls most rapidly, there is less frequent relapse, and there is quicker recovery. In brief, the experience of treatment of rheumatic fever minus alcohol presents to me as much novelty as it does pleasure, and I am convinced that if any candid member of the profession could have witnessed what I have witnessed in this matter, he would agree with me that alcohol in rheumatic fever, however acute, is altogether out of place. I am also under the conviction, though I express it with great reserve, that in acute rheumatism, treated without alcohol, the cardiac complications, endocardial and pericardial, are much less frequently developed than where alcohol is supplied.”

THE HOME GYMNASIUM

CORRECT SITTING.

RELAXED or improper sitting is a most common cause of physical deformity and disease. Probably



Fig. 1. A Healthy Figure.



Fig. 2. A Corset-Deformed Figure.

but few people are aware of the fact that the organs of the abdomen, the stomach, spleen, kidneys, and bowels, depend chiefly upon the strength and firmness of the abdominal muscles to support them in their normal position, as shown in Fig. 1. Anything which narrows or flattens the waist, whether it be a constricting waistband or a malposition, must result in displacement of these organs. The purpose of this article is to present, in a pictorial way, the evidence of the association of internal and external deformities.

In Fig. 2 is shown a correct representation of the position of the internal organs in a case of moderate displacement, or enteroptosis. It will be noticed that in Fig. 1 the stomach, liver, spleen, kidneys, and the greater part of the transverse colon lie above the lower border of the ribs, while in Fig. 2 these glands are, for the most part, below the lower border of the ribs. It is not an uncommon thing to find the stomach and other organs dis-

placed to a much greater degree than is shown in Fig. 2. That these displacements are altogether due to tight lacing is readily shown by the fact that they are found with far less frequency in men than in women. In Fig. 3, for example, is shown the side profile of a man in whom the lower border of the stomach had reached a point two or three inches below the umbilicus, some four inches below its normal position, in consequence of an incorrect position in sitting and standing, as shown by the diminished spinal curve, the flattened chest, and the depressed waist. This patient was suffering from a variety of nervous disorders as the result of a disturbance of the abdominal sympathetic nerve, in consequence of the strain of the prolapsed stomach and colon.

In Fig. 4 is shown the profile of a woman of thirty, whose occupation has been that of a seamstress. She had been, to some degree, addicted to tight-lacing, and yet my investigation of the case con-



Fig. 3. Man with Umbilical Hernia.



Fig. 4. Results of Corset-Constriction.

vinced me that the deformity from which she was suffering was, for the most part, due to the relaxed

position which she assumed in sitting; the straightened back, the furrowed waist, the protruding abdomen, were all indicative of this.



Fig. 5. Corset Constriction in a Sitting Position.

The bad effects of malposition in sitting are greatly increased by corset-wearing, as is well shown in Fig. 5. The soft, yielding tissues of the abdomen and the underlying organs are gradually forced out of place by the unyielding corset steels or bone, which, having an inward curve, press in upon the body to an

increased degree when this position in sitting is assumed, especially in bending forward in a sitting position.

These displacements unquestionably begin, in many cases, quite early in childhood. In Figs. 6



Fig. 6. Result of Sitting on a High Stool.



Fig. 7. Incorrect Position at a School Desk.

and 7 are shown positions often assumed by school children, as the result of which they become round-shouldered and flat or hollow-chested. The conditions named are not simply unpleasant to the eye, but are in the highest degree detrimental to the

health. A flat, hollow chest means compressed lungs, which are never free to expand to their fullest extent. Round shoulders mean a posterior curve in the upper part of the spine. This sort of curvature can be readily corrected in a person under twenty-five or thirty years of age, and sometimes even at a more advanced age; but in persons in whom



Fig. 8. Spinal Curvature.

the curvature is found at the age of forty years or more, it can seldom if ever be fully corrected. Posterior

curvature in any portion of the spine means a depressed condition of the stomach and other viscera, as shown in Figs. 3 and 4. Lateral curvatures also result from improper sitting.

Fig. 8 shows how curvature of the spine may easily be produced by the adoption of a wrong position in sitting, as regards the level of the shoulders; one arm being raised, the spine naturally curves toward the same side, and the frequent repetition or long continuance of this position is always required in a young person to produce curvature.

Fig. 9 is an anterior view of a similar case. In this case, however, double curvature had resulted, there being, of course, a curvature to the left in the upper part of the spine, and to the right in the lower part, resulting in the elevation of the left hip and the depression of the right shoulder.



Fig. 9. Lateral Curvature from Neglect of Physical Development.

Sitting in a rocking-chair (Figs. 10 and 11) is one of the most prolific causes of curvature of the spine. Fig. 10 illustrates the ordinary position of a lady sitting in a rocking-chair. Careful examination of the figure will show that in this case the weight of the body rests largely upon the lower part of the back instead of wholly upon the thighs, and the natural anterior curve of the lower portion of the back is wholly obliterated, the line of the anterior of the body having become concave instead of convex, as in the normal position.

Fig. 11 illustrates the utter impossibility of sitting comfortably in a rocking-chair while endeavoring to



Fig. 10. Lying down in a Rocking-Chair.



Fig. 11. Trying to Maintain a Correct Position in a Rocking-Chair.

maintain the correct position. This fact will be better understood, however, by reference to Figs. 12-19, in which Figs. 12, 14, 16, and 18 represent correct positions, while Figs. 13, 15, 17, and 19 represent incorrect positions.

The curve of each pair of figures, correct and incorrect, will render a particular explanation un-



Fig. 12. Energized Sitting.



Fig. 13. Relaxed and Forward Sitting.

necessary. It will be noticed that in each, the anterior line of the body is convex while the body is energized, but concave when it is relaxed. A certain degree of energy or forcible contraction of the muscles must be maintained whenever the body is in an upright or erect position, whether standing or sitting. This is necessary for the reason that the internal organs depend for their support upon the contraction of the muscles and the elevated position

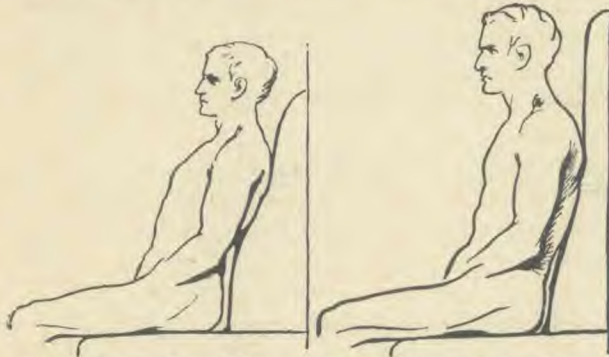


Fig. 14. Correct Sitting Position. Fig. 15. Incorrect Sitting Position.

of the chest. When the chest is dropped and the anterior wall of the abdomen sinks in as the result of relaxation of the muscles of the back, allowing the natural hollow of the back to disappear, the head and shoulders to droop forward, and the center of the back drops backward, the stomach, liver, bowels, and other organs of the abdomen and pelvis at once drop downward, and the result is an abnormal strain upon the abdominal sympathetic



Fig. 16. Correct Position. Fig. 17. Incorrect Position.

nerve and a more or less marked derangement of the functions of the stomach, liver, kidneys, and other organs.

The writer has met numerous cases in which the stomach was so much disturbed in its functions as the result of this abnormal position that it could not empty itself; the liver was so compressed that it was unable to perform its duties satisfactorily; and one or both kidneys were so much out of place that the urinary secretion was held back, resulting in the formation of calculi and the final destruction of the organ. In one case it became necessary to re-



Fig. 18. Correct Position.



Fig. 19. Incorrect Position.

move the right kidney, and in the kidney was found a stone weighing more than four ounces. This of course was an extreme case, and yet a morbid condition may arise in any case in which a kidney becomes depressed from the cause mentioned.

In Fig. 14 to 17 the artist has represented the correct and incorrect positions while awake and sleeping in the seat of a railway carriage. These seats are commonly constructed in such a manner that the whole back receives some degree of support when an individual places himself properly in the seat. As placed by the artist, the hips are somewhat too far forward. Whether the seat is an ordinary chair or an upholstered sofa, the body should be placed far enough back in the seat so that the hips will touch the back, as shown in Fig. 12.

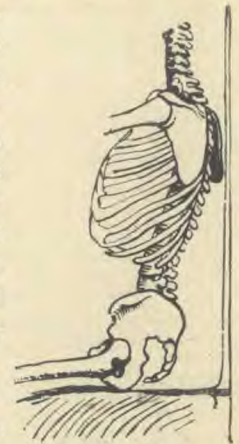


Fig. 20.

In Fig. 20, is shown that portion of the skeleton which is particularly affected by the sitting posture. It will readily be seen that in the positions shown in Figs. 6, 7, 10, 13, 15, 17, and 19 the natural anterior curve of the lower portion of the spine must be destroyed, and the slight posterior curve of the upper part of the spine abnormally increased. When this position is maintained for a

considerable part of the twenty-four hours, as is likely to be the case with persons of sedentary habits, such as seamstresses, musicians, etc., a permanent curvature is very often established, resulting

in a permanent displacement of the abdominal organs, and the great variety of symptoms and disorders which render the life of the sedentary person a burden both to himself and his friends.

FOOTBALL AND BODILY DEVELOPMENT.

IN view of the undoubted fact that football is a dangerous game, we may well inquire what are the benefits which are to compensate—and, according to many, to do much more than merely compensate—for the risks run. Does the practice of the game and the training it involves so set men up that football can be credited with that robust, athletic development which good football players undoubtedly display? To this, says the *British Medical Journal*, one can certainly answer, No. Dr. Beyer, in the *American Journal of the Medical Sciences*, comparing the average football players among the cadets at the naval academy with the average student at the same place, finds that, while the players were but two months older than the others, they were four per cent superior in height, twenty-eight per cent in weight, twenty-one per cent in lung capacity, and forty-nine per cent in total strength. Between the average Yale student and the average American football player the players were one year and one month older, but they were two and eight tenths per cent taller, twenty per cent heavier, had ten per cent more lung capacity, and were forty per cent stronger than the fifty mercantile grade of Yale student. Clearly, football has a selective influence by which the stronger youths are drawn to take up the game to the exclusion of the weaker sort. The game thus

cannot be credited with the product; the players are originally recruited from a select type.

Dr. Beyer gives a series of observations taken before and after training for football and other forms of sport, which, so far as they go, are of considerable interest. As a means of physical training, football is a good game, capable of largely developing the bodily powers; but it may be observed that in neither of these series of observations was there any increase of the "vital index" (obtained by dividing the lung capacity by the weight). In both series, in fact, it was diminished, the lung capacity not increasing in as great a ratio as the weight. So far as these results go, it would appear that boating and systematized gymnasium drill are far superior to football as a means for bodily training; and the large increase of lung capacity produced by boating is specially noteworthy. Whether, however, pulling at an oar or drilling in a gymnasium will impart or develop the quickness, pluck, and readiness of resource so characteristic of football, and so useful in after-life, is another matter, and one on which players of the game will probably speak with no uncertain voice. The game certainly should be preserved, which makes its reformation and the elimination of useless and dangerous risks all the more important.—*St. James Gazette* (Eng).

THE HEALTH-GIVING WALK.—One young woman, who had both horses and bicycle at her command, but who suffered constantly from insomnia, was ordered by her physician to walk at least one mile every day. So loath was she to begin what she considered "such an undertaking" that her fond parents finally bribed her by offering a financial consideration. After six months of daily tramps the pedestrian was heard to say that she had long ceased taking the bribe and had begun to feel that the walk was, on the contrary, worth paying for, so great was the benefit received. For girls who have plenty of leisure it is a most charming pastime to get up pedestrian parties and visit places of interest during the summer, tramping for half a day, then resting and recuperating for the morrow. This method of spending a vacation possesses the double merit of

improving the health and leaving the pocketbook in robust condition.—*Sel.*

SOME one has said: "In the beginning of disease, full, deep breathing is well-nigh a panacea." The best tonic is not found on the drug shelves, but is manufactured in the great laboratory of nature, and is free to all who will breathe full, deep, regular, according to her laws.

MILLS COLLEGE girls, California, have a "Tramping Club." One condition of membership is the ability to walk ten miles. They go out once a fortnight, sketching and making natural history collections. They wear blouse waists, and skirts reaching to the tops of their shoes.—*Woman's Column.*



Home Culture

BUSY FINGERS.

WORK. Such a little word with such a gigantic meaning: used even of God—he is said to have worked and rested; used of the tiniest child that pricks its fingers in the sewing class of our schools. Not a creature but has heard the word often and often. Many associate nothing with it that concerns themselves; many limit its meaning to one particular form; many have grown so accustomed to the word that it has come to have no meaning at all to them. I am rather inclined, at this moment, to take the middle course of “limited work,” as I want to have a little talk with girls on the subject of needlework. Do not think it is a dull and uninteresting subject. I can assure you from long experience that it is most fascinating; and if only one or two of you are of the same opinion when you have read this paper, I shall feel I have contributed somewhat to the happiness of the world. It is against all the rules of uprightness to talk to others of what one knows nothing; therefore I pass by art needlework, by which I mean those lovely embroideries on silk, linen, or cambric, and the exquisite needle-made lace which has of late years been revived in England, after being for some time the monopoly of Italy, Spain, and France. I admire the skill and patience of the workers, think the result beautiful, but understand none of its intricacies.

Next, there is a class of work prefaced by “Fancy,” which I particularly dislike. It consists of poor, coarse imitations of tapestry and debased crewel work. It has no beauty, requires no skill, and only patience from those who possess the articles when finished. I hope you will steer clear of such absolute waste of time.

Lastly, I come to plain work. Here I am in my element, so dare to speak out. From childhood I have been a plain worker; one of my earliest recollections is of pricked fingers over the stiff muslin border of a nightcap for an old woman, and of tears

over whipping the frill, as the muslin would not roll neatly; frills and whipping are both out of fashion now, so you will be spared tears.

The very first point I want you to take in is that the beauty of plain work depends entirely on the worker—to my mind a most delightful peculiarity. She has not the helps to effect that are given to art work. Calico, flannel, and print are not poetic materials. Cotton properly used and with clean fingers, should be invisible. Our materials are prosaic and ineffective,—we grant it,—but even hemming, straight stitching, fine “stroking,” neat seams, small stitches, the whole exact and well finished, a plain-work garment, is one of the most beautiful things a woman’s fingers can produce. I possess some such, and they are more pleasing and satisfying to my eyes than all the embroidery I ever saw.

There is a charm in any beauty that is equally open to all; and every woman, if she chooses, can work well. It is an evidence of refinement to do things well, and neat work is a symptom of respectability. Ask any one who has had to do with large working societies, and they will tell you the same, that the best work is always done by the “nicest women.”

Many thousands of garments pass through my hands in the course of the year, and I have in my lifetime cut out hundreds, so you may trust my counsel to you on this practical subject.

I would have girls in all classes taught to cut out and make a specimen of every article they wear. They may have to use their knowledge for themselves. They are sure to be able to use it for others, and knowing how things should be done, makes us able to criticise correctly.

We will begin with cutting out: it must be done exactly and economically. Never be daunted by difficulties; overcome them. If you have no table for cutting out, use the floor; if the floor is unavailable,

pin on your pattern with many pins, then you can cut it out with one hand while you hold it with the other. Tax your ingenuity when little difficulties arise ; you will soon find a way out of them.

Be *exact*. Your pattern is, of course, a paper one. On it may be written, "Turnings allowed for," or some such expression, which means that you can run your scissors exactly along the edge of the paper ; listen to no suggestions of "just a little bit longer or wider." You will only get out of proportion.

Be *economical*. Measure off just the length you want for your garment ; if it is exactly the width you require, fold it in half lengthwise ; if too wide, say two inches, take both inches off of one side, not one off of each ; in this way you secure a strip for which you will find many uses. Always cut the right way of the stuff. It is not economy to make things longitudinally when they should be made the other way. All garments should be cut lengthwise. Keep all your scraps ; they will be handy for gussets, bands, and such like mysteries.

Gowns, of course, are much more difficult to cut out and make. I have made a great many, so I know. Often have I wished we were a one-armed race ; it seemed so impossible to get two sleeves alike. There is nothing more useful to acquire than the power to make all one wears. A rather defined stripe is good in the material of the first gown, it helps you to see how badly you are doing it, and thereby helps you to the remedy. Unpick any slight defect at once ; if you leave a little one to-day, you will pass over a larger one to-morrow. The actual work in gowns is of a much looser nature than in underclothing, but neatness is as essential, and quite compatible with larger stitches.

As you finish cutting out one article, fold it up neatly with everything that belongs to it, tie or pin it together, and put it aside ; in this way no time is lost looking for odds and ends when the moment for making arrives. Be liberal in the matter of making, it saves time and keeps things even. Allow good "turnings in" everywhere. Fasten buttons and

tapes strongly. Finish off every part well and tidily. Keep your work clean, and then I think you will find pleasure in making the most extraordinary garments. I do not believe any one ever was or can be satisfied with what is badly done. Mark, I say *satisfied*. Never mind if you are a slow worker ; by taking pains you avoid mistakes, that is a gain of time. There is only one way to do anything, and that is *thoroughly*. Everything of discipline, however small, trains us for larger things ; we are often cultivating great virtues in very little ways.

How sad it is in a world where time is short and work plentiful, to hear people complain of "nothing to do," of "time hanging heavy on their hands ;" worse still when they try to get rid of it by busy frivolity.

Life is the space of time allotted to each of us ; we are apt to waste or use it recklessly because of its uncertainty. "By and by" we will do wonders. Who told you you would have a "by and by" ? *Now* is all we can rely upon. Now it is that we are to be busy ; in the great by and by we shall rest.

Don't forget that though you call yourselves idle, and may do so with indifference or regret, you are not idle ; you are doing some work, for living is working, in a sense ; you are living, therefore active, not passive. You are consequently producing some effect on the world : it is better or worse for your being in it. True, yours may not be busy fingers—hands are but one of the trio that work ; head and heart, the other two, are not idle. In some way, we can pretty well guess what, they find occupation. Mischief, we know, hovers over idle hands. Be busy, then, from your earliest years ; the habit will help you when life becomes more full and complicated. Many a time you will rejoice, when tempted to restlessness, that you trained yourself to stillness and business,—grand, womanly combination.

We began with God, we will end with God. How does he work ? Gradually, surely, with order and regularity,—four ways in which we can follow him. —*Lady Wolverton, in the London Woman's Herald.*

BETTER WHISTLE THAN WHINE. — As I was taking a walk, I noticed two little boys on their way to school. The small one stumbled and fell, and, though he was not very much hurt, he began to whine in a babyish way, not a regular roaring boy cry, as though he were half killed, but a little cross whine.

The older boy took his hand in a kind, fatherly way, and said,—

"Oh, never mind, Jimmy, don't whine ; it is a great deal better to whistle."

Jimmy tried to join the whistle.

"I can't whistle as nice as you, Charlie," said he, "my lips won't pucker up good."

"Oh, that is because you have not got all the whine out yet," said Charlie ; "but you try a minute, and the whistle will drive the whine away."

So he did ; and the last I saw or heard of the little fellows they were whistling away as earnestly as though that was the chief end of life.—*Sel.*

JACK AND JILL.

BY MARTHA WATROUS STEARNS.

It was a hard hill that Jack and Jill had to climb, but that was not the worst of it. They had to bring a large pailful of spring water for Mother Goose, and after that they had to work out a sloyd model, some-



THE PITCHER PLANT.

thing they usually enjoyed doing, but it seemed just then as though the rest of the family had thought of everything there was to think of in that line, from birds' nests to butterflies' wings. They started out, nevertheless.

"It is horrid," said Jill, "that we have to bother our heads this warm weather over sloyd. It's fun if some one will stand by and tell you just *what* to make and just *how* to make it, but sloyd teachers do n't do that very often; they tell us that we must use our own heads and not theirs, and that is what sloyd is meant to teach us. I do n't see why it hurts to tell us things, and I think it's lots nicer to have everything in a book and then all you have to do is to take your book and learn your lesson right out of it, and you know just what you've got to recite."

"But, Jill," returned Jack, "you don't know what use to make of it when you have it; and what is the use of learning something you don't know how to use? Lessons are no good if they are just in your head, and you see sloyd takes things out of your head and uses them."

"But suppose, Jack, you have n't anything in your head to take out, then what is it good for?"

"O, it's good to put things in as well as to take them out."

"You are just like that patent medicine man who came around the other day, Jack. His medicine would make you fat if you were thin, and thin if you

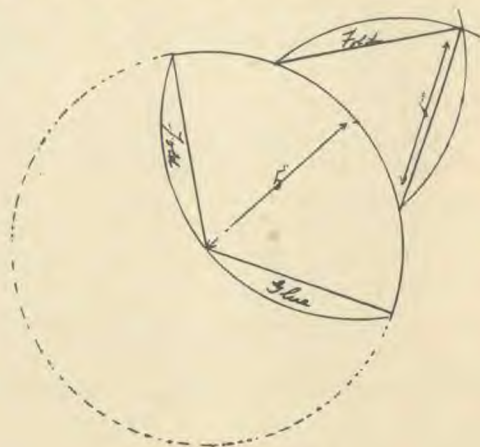
were fat. You think sloyd will do everything; for my part when I want a basket, or a box, or a portfolio, I prefer to buy one, without spending my time on something that is not half so good."

"But the fun of making it is the best part," returned Jack, "*that* you can't buy. It is the 'knowing how' to do things that I like, and sloyd models are really just examples for working out the ideas given us in books or in nature; and these boxes and baskets you make such fun of are just as full of arithmetic and geometry as any text-book ever published. God has printed it all on the leaves of plants and trees, and everything he has made, and sloyd is just learning how to read and use them. That is the kind of study I like.

"But here we are at the spring, Jill," and the two small pilgrims having made the ascent of the hill Difficulty, sat down to refresh themselves with a drink of spring water. Jack had hardly dipped into the cool, rocky crevice for his drink, when he exclaimed, "I see a model, Jill!"

"Where?" said she, "I don't see anything but some pretty moss and ferns."

"Why, it's just as plain as daylight; a paper cornucopia, or, upside down, a soldier's cap, only that



WORKING DRAWING.

is n't very useful excepting as a plaything, or a little paper pitcher," and Jack's far-away gaze might have been directed into a sloyd room full of models, though there was apparently nothing before him but a bed of ferns.

"O Jill, you belong to the people who have eyes but see not. Sloyd is a kind of educational optician who can do wonderful things with your eyes so you can be looking at one thing and seeing another that is n't even made; now just look at those little green, leafy cornucopias. Don't you know what they are?"

"Pitcher plants."

"Yes. Would n't they be cute if they were only paper vases to hold grasses and flowers? or you could tie a ribbon through and hang them up; or if you made them out of heavy brown paper, you could use them for little pitcher cups to drink water out of on picnics, and have paper cups like the paper napkins the Japs have."

Jill admitted Jack's ideas to be good ones, and sloyd not so very bad after all, if it taught people to see such pretty things.

Their heads were soon so full of lovely possibilities that they almost forgot their pail of water, and when they finally started home with their hands full of pitchers and their pail full of water, their heads were home before their feet, and *they* gave up the race, and down hill went the children according to rhyme —

"Jack fell down,
And broke his crown,
And Jill came tumbling after."

The sequel only differed, for instead of the faded vinegar and brown paper with which Jack's

head was mended, the brown paper was utilized for a sloyd model instead of a plaster, and proved equally efficacious in relieving Jack's feelings.

The children, first of all, drew a circle with a five-inch radius, then took one third of it to fold for the cone, and in the center of this, described an equal-sided angle which, folded, would form the mouth



CORNUCOPIA.

of the pitcher. The circular margins they drew on the sides of the cone, one for gluing on, and the other for a handle. Then they cut and folded together the cone, like the drawing, and had a pretty holder for dried grasses, and the pitcher plant study was voted a success by at least two children.

THE BATTLE CREEK SANITARIUM DRESS SYSTEM.—VIII.

THE garments presented this month are the work of our special designer, except the apron, which belongs with the Exercise or Bicycle Suit given in the August number. The skirt with gored front and sides, and straight back, which was promised for the present number of this journal, will be postponed until the October issue, as our space is limited, and those we here present are thought to be of paramount importance. Our new waist, the Myrtle, which, as it has a lining, is designed to supersede the Favorite shirt waist upon the approach of the cooler days of the early autumn, seems especially called for just now. This waist, like the Favorite, is cut of the proper length to swing the weight of the skirt from the shoulders. This principle, by the way, will be seen to be the underlying one in every garment designed from our system.

The Emancipator Waist is a new and valuable design for an underwaist, and when once its merits become known, without doubt it will be very popular. The following are a few of its more obvious advan-

tages: The two darts running up and curving over the bust follow the natural lines of the figure, and give a full, well-rounded outline, such as is afforded by no other garment save by the use of artificial means. Even a thin figure with a good poise will appear to advantage in this waist, as both back and front are admirably adjusted to the proportions of the natural figure. By fitting it smoothly underneath the bust, this waist is made a most excellent bust supporter. It also makes a better support for skirts than the ordinary waist, as by reason of the seams running up over the shoulder there is no draw or strain on the neck or back. The lower row of buttons on the Emancipator are for the petticoat or underskirt, which is gathered into a circular band or yoke, and buttoned on. The upper row of buttons is for the ordinary skirt, worn next the dress. This will need only a band with buttonholes. Any kind of dress skirt may be worn and buttoned to the same row of buttons. Also any style of dress waist may be worn and buttoned to the same buttons. Thus

there can be no possible drag of any garment upon the hips, as all will by this means swing directly from the shoulders.

The Myrtle Waist.—This pattern is in twelve pieces,—front, back, and under-arm gore of lining, front and back of outside material, plait, fichu, two collar portions, and three sleeve portions. Two sleeve patterns are given,—a large and a small one; the use of either is left to the taste of the wearer. The quantity of material needed is $4\frac{1}{3}$ yards of goods 36 inches wide. Patterns can be furnished in the even sizes, from 30 to 44, bust measure. Price of pattern, 25 cents.

The Emancipator Waist.—This pattern is in three pieces,—front, back, and back side gore. Satin finished satine was used in the present in-

stance, but muslin, silesia, or jean may be used. The quantity of material needed is $1\frac{1}{2}$ yards of 36-inch goods. Patterns can be furnished in the even sizes from 30 to 44, bust measure. Price of pattern, 20 cents.

Apron of Exercise Suit.—This pattern is in six pieces,—front, side, and back in one, back shoulder piece, strap, belt-stay, and pocket. Blue and white checked gingham was used in the present instance, but any kind of wash material may be used for this useful garment. The quantity of material needed is $4\frac{1}{2}$ yards of 24-inch goods. Pattern can be furnished in even sizes from 30 to 44 inches, bust measure. Price of pattern, 15 cents.

For all patterns address, Sanitarium Dress and Pattern Dept., Battle Creek, Mich.

STORY OF THE BROWNIES.

It was a very rainy Saturday in May, and three very little girls stood looking out of the sitting-room window.

“What a horrid, horrid day,” said Alice.

“What a little Miss Grumblekin,” exclaimed Aunt Lucy, as she hurried through the room.

“But, Aunty, we have n't anything to play with,” said Julia.

Aunt Lucy stopped a moment. “I know a nice game you can all play,” she said.

“What is it?” asked Dora.

“Play you are all little brownies.”

“But what do brownies do?” cried all in a chorus.

“Things to help people when nobody sees,” was the reply; “surprises, you know. They keep jumping and hopping all day long, doing little things for others. It is very hard for them to stand still.” And then aunty left the room.

Soon after, three little brownies began to jump around and look for something to do. Alice went in the hall, Julia went upstairs, and Dora stayed to dust the parlor.

A WORD IN RELATION TO BOYS.—Mothers, train your boys to be neat in the house. They should be taught to look after themselves, and to keep their hats and coats in their proper places. Teach them this habit, and you will be saved many an annoyance, and you will also do a great kindness to the boys by teaching them neatness and self-respect.

Boys as well as girls should be taught to help in the house. How often we have been disgusted to see that the girls are made to help at the housework

As the family sat at the supper-table that evening, mamma said, “I believe that there has been a good fairy around to-day. Somebody dusted my room and put my work-box in order.”

“Why, how strange!” said grandma. “Somebody found my spectacles, and saved my coming down-stairs for the morning paper, too.”

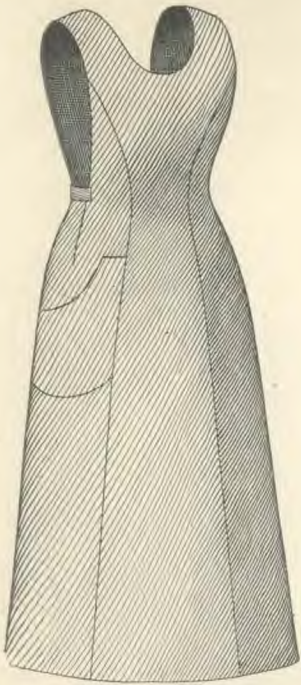
“I wish you would notice the hall closet,” said Aunt Lucy, “you know it's the catch-all for the family.”

“Yes,” said mamma, “when everything else is in order, that closet is all topsy-turvy. I must straighten it soon. But it looks very nice to-night; shawls and hoods are all on the shelves, and the hats and gloves in their places. I could hardly believe my eyes.”

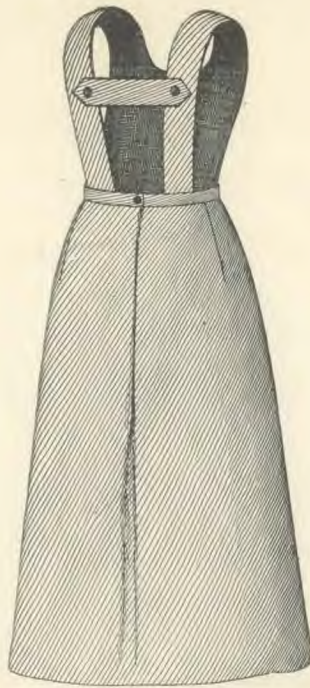
“There is a certain little girl,” said papa, “who often forgets to put my gown and slippers by the fire, but my fairy must have done it to-night.”

That evening Alice, Dora, and Julia told their aunt it had been such a happy day. And you would not have thought them the three little girls that had pouted at the rain in the morning.—*Child Garden.*

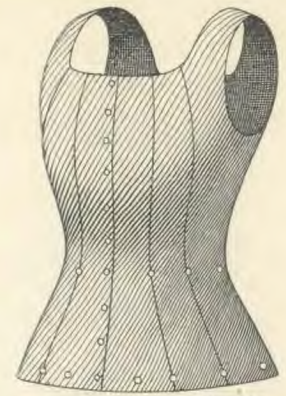
while the boys are allowed to play checkers or sit at the fire toasting their toes. A boy can help clear away after a meal, sweep the floor, polish the stove, or wash the dishes, just as effectively as a girl. He, as a rule, is stronger. Have him do these things. He will love his home more, and when he becomes a man and has a home of his own, he will respect his wife all the more for having been taught to respect his mother and sisters at the parent home.—*The Progressive Age.*



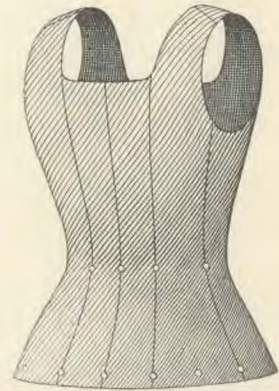
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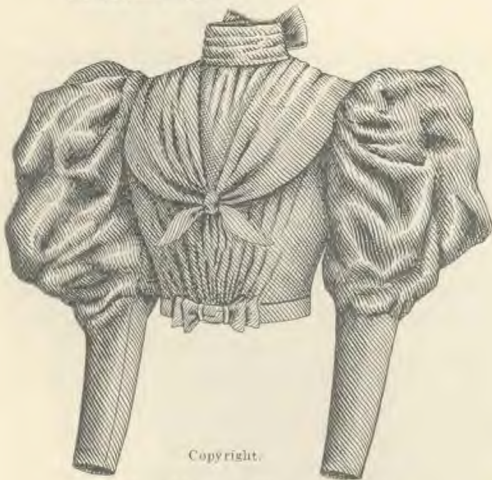
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WHAT THE BABY SAID.— Now, I suppose you think because you never see me do anything but feed and sleep, that I have a very nice time of it. Let me tell you that you are mistaken. How should you like every morning to have your nose washed up instead of down? How should you like to have a pin put through your dress into the skin, and have to bear it all day till your clothes were taken off at night? How should you like to be held so near the fire that your eyes were half-scorched out of your head, while your nurse was reading a novel? How should you like to have a great fly light on your nose and not know how to take aim at him with your little fat, useless fingers? How should you like to tire yourself out, crawling away across the carpet, to pick up a pretty button or pin, and have it snatched away as soon as you begin to enjoy it? I tell you it is enough to ruin any baby's temper.

COURTESY BEGINS AT HOME.— Courtesy begins at home and should be put on with one's slippers when the feet are thrust out of bed in the morning. Let me see a woman meet her servants in the morning, and I can tell you if she be a gentlewoman or no. The thorough bred lady—in the old acceptation of the word—has a kindly greeting for every fellow-creature, no matter how lowly, with whom her life throws her in daily or frequent contact; and the little wayside flowers, in the form of cheery "Good morning's" and "Thank you's," which she scatters through her days, earn for her willing, often devoted, service, and are most efficient aids in helping the household machinery to move on without jars.

The woman who, on leaving her room in the morning, passes her household in the hall without notice, unless to rebuke the girl for not having done her work before, is a boor, no matter what be her social status; and her fellow is the woman in the boarding-house who brushes past her neighbors without more recognition than she would accord a stone, and eats her meals in stolid silence—which she usually considers dignified reserve.

Easy and pleasant recognition of persons with whom she is for the moment thrown in contact marks the woman of cultured heart as well as brain, and implies no further acquaintance unless it should be mutually desired. The woman who is afraid, on occasion, to speak courteously to a stranger, or proffer needed service or information, must be very uncertain of her own position.— *Demorest's Magazine*.

ARTISTIC DARNS.— Nothing keeps flannels and stockings and other underwear looking so well as darning and mending and preparing material that matches perfectly. A hole seems almost preferable to a gray stocking darned with blue, or a black under-skirt bound with red, or a brown patch where there should be a black one. Buttons, all kinds of mending threads, in cotton, linen, silk, and wool, bindings in taffeta, ribbons, and even webbing, by the yard, are to be bought at most reasonable prices for making old things as good as new, and for keeping the new in perfect condition. It seems to be an economy in the same direction to buy the same makes and colors in flannels and hose from season to season, so that one may have material to reinforce weak places without buying it.

FOR THE INVALID.

Egg Cream.— Beat the white of an egg to a stiff froth, add a tablespoonful of white sugar then beat again, next add the yolk of the egg, beat thoroughly, and lastly one tablespoonful of water and two tablespoonfuls of unsweetened grape, red raspberry, or blackberry juice.

Gluten Custard.— Into a quart of boiling milk stir four tablespoonfuls of wheat gluten (Manufactured by the Sanitarium Health Food Co.), moistened with a little of the milk, which may be reserved for the purpose. Allow it to cook until thickened. Cool to lukewarm temperature, and add three well-beaten eggs, and a trifle of salt, if desired. Turn into cups,

and steam over a kettle of boiling water until the custard is set.

Egg Gruel.— Boil the yolks of three eggs until dry and mealy, mash perfectly smooth, then add a cup of boiling milk; season with salt and serve.

Vegetable Broth.— Pick over and wash a cup of dried Scotch peas, and put to cook in a quart of cold water, cook slowly in a double boiler or in a kettle placed on the range, where they will just simmer until but a cupful of liquid remains. Strain off the broth, add salt and one third of a cupful of the liquor, without pulp, from well-stewed tomatoes. Serve hot.

E. E. K.



CLEANLINESS FROM A HEALTH STANDPOINT.

CLEANLINESS from a health standpoint differs from apparent cleanliness to the eye, in that the patient and all his surroundings must not only seem to be, but must really be, clean. Clean clothing may cover a dirty skin; sparkling water may be very foul; a well-ordered, neat house may be full of foul odors from cellar, cesspool, and sewer pipes. A bed clean and fair to view outside, may be very foul inside. As the bed, bedding, and clothing have been spoken of in detail in previous numbers of *GOOD HEALTH*, it remains now for us to consider the details of the personal cleanliness of the sick and helpless.

The body is covered with an outside layer of cells, which are constantly drying and falling off. The skin is studded all over with little openings, out of which is continuously flowing the foul waste matter of the body to the amount of two or three pints a day. When moving about in the open air, much of this waste matter is carried away by evaporation on the currents of air which constantly pass over the body through the clothing; but when one is confined to the bed, or is helpless, this foul matter saturates the dead cells of the epidermis and the clothing, and unless the body is frequently washed it will be reabsorbed.

The skin is sometimes so very thin and sensitive that it cannot bear much soap. In some extreme cases of eczema the skin should be cleansed with sweet oil only, giving one good soap and water shampoo each week. Some persons having a very sensitive skin take cold whenever they take a bath. It is well in such cases to give a brisk dry rub or dry shampoo before the bath. This will bring the blood to the surface and if well rubbed afterward, the surface will remain warm. Others have a cold, clammy skin, which absorbs and holds the water on its bloodless surface. A dry shampoo will help such very much, as will also a prolonged rub while ex-

posed in the air of a room 75° F. The exposure of the surface will hasten evaporation, and the friction will bring the blood to the surface.

The surface of the body should be kept whole, and every means taken to heal up any broken spot that may appear on it, especially when the patient is weak and ill. Most disease germs invade the body from the outside, and when this, to them, impenetrable surface is broken, they find a ready channel into the blood-vessels and absorbents, and poison the tissues. Thus pimples, boils, and carbuncles are induced in weak patients. One boil may, by infecting the clothing and the surface of the skin, produce many others around it.

The mouth and nose need special care, as they are the principal channels through which disease germs enter the body. When unhealthy, they there find a lodging and growing place. The diseases which affect the lungs usually enter with the air, chief among which are the tubercular bacilli, and the germs producing pneumonia, diphtheria, croup, la grippe, tonsillitis, and common cold. No one can escape these germs; yet when the mucous surfaces of the mouth and nose are whole and healthy, and the secretions normal, the disease germs are soon destroyed, or at least do not increase in numbers, and so do no harm. When there is a broken surface, however, or the mucous membrane is swollen, or there is a catarrhal condition with unhealthy discharges and enlarged blood-vessels, then these germs flourish and invade all the tissues of the body.

Snuffles in the infant, when the nose becomes filled up with unhealthy, hardened, foul matter, may be the starting point of chronic nasal catarrh, bronchitis, or tuberculosis of the glands of the neck or the lungs. The tonsils may become enlarged. The ears are also likely to be affected, and deafness may be the result. The nose needs cleansing and disinfecting, and whenever there is evidence of foul mat-

ter and catarrh, it should be sprayed out with a weak solution of boracic acid or hydrozone, and afterward anointed with vaseline. This is important in infants and also in all cases of acute and chronic disease. A sore nose is unsafe to carry about; it should be healed up at once.

The first teeth are often neglected. The mouth and gums during the teething period also become inflamed and produce unhealthy secretions. In the majority of cases the child's mouth is never washed or cleansed in any way. Patches of thrush and small ulcers appear. The infant's stomach gets out of order as a consequence, and it is fretful and sleepless. The teeth, being surrounded with unhealthy acid secretions, begin to decay almost as soon as they appear. The breath is foul, and the cavities in the rotten teeth form so many receptacles for disease germs to lodge and grow. The lymphatic glands are invaded by tubercular germs, become swollen and inflamed, and often suppurate, then heal, leaving deformities and unsightly scars, so the disease progresses, till the germs invade the lungs and death occurs from consumption.

The second teeth receive much of the lime and salt required to build them, from the fangs of the first teeth, which are dissolved by cell action and taken up by the absorbents for this purpose. When the gums are unhealthy and the first teeth decay, the building cells are imperfect and weak in their work, and the material poor in quality and deficient in quantity; so an imperfect, short-lived set of permanent teeth appear, which torment their possessor with toothache; and they crumble and refuse to hold the dentist's fillings, although adjusted with care and skill. The premature decay and removal of the first teeth also results in deformed and contracted jaws.

The baby's mouth should be washed several times a day, or as often as it nurses, with clean boiled water. Whenever there are any signs of inflammation or any sores in the mouth, use a solution of borax water, a teaspoonful of borax to half a cup of boiled water, and a teaspoonful of glycerine. When the gums are irritable, and the child is inclined to bite everything it can put in its mouth, gentle rubbing and massage of the gums, with a rag dipped in cold clean water, or letting the baby have a piece of clean ice to bite, often gives great relief. All cavities in the first teeth should be filled and the mouth kept healthy until the permanent teeth push the temporary set out.

In all cases of fever and acute disease the mouth becomes very foul, and sordes gather on the teeth unless very frequently cleansed. The patient may

be poisoned by swallowing the foul secretions from the mouth. A teaspoonful of lemon juice, a teaspoonful of glycerine, and six teaspoonfuls of boiled or distilled water, make a very pleasant and efficient mouth wash. Always rinse the mouth afterward with pure water. In fevers the mouth should always be rinsed before eating, drinking, or taking any form of medicine. A saturated solution of boracic acid or a teaspoonful of listerine in four of water, or hydrozone, one part to twelve of water, are all valuable solutions for cleansing the mouth.

In health, every one should form the habit of keeping the teeth sound, the gums healthy, and the teeth filled, if he would preserve the digestive organs in a healthy condition. After middle life the gums tend to become soft and spongy, and require frequent brushing and rubbing, or they will bleed, and pus sacs be formed around each tooth, thus causing the mouth to become very foul.

The other orifices of the body should be carefully looked after and kept clean,—by the nurse, for the sick and helpless, and by the well, for themselves. The ears collect dust and germs, and these, mixing with the secretions of the ears, set up an irritation which leads people to attempt to scratch their ears with all sorts of dangerous weapons, as hairpins, toothpicks, and the like. When the ears begin to itch, it is an evidence that they need cleansing with some mild disinfecting solution, as a boracic acid or a hydrozone solution, which should be warm, and may be used by allowing the medicine to drop from a sponge or dropper, or by using a small ear syringe. After retaining a short time, depress the head and allow the fluid to run out, then wipe the ear dry with absorbent cotton or a clean rag. Children's ears should be watched carefully, as they often suppurate and discharge without attracting the attention of the parents, and the hearing is permanently injured by neglect and want of cleanliness. Whenever a child begins to scratch or handle any part of its body, find out at once why it is tempted to form this habit, and remove the cause, which, nine times out of ten, will be found to be an irritation due to dirt or disease.

The anus and openings of other excretory organs, require special care, as they are frequently bathed with the foul waste matters of the body, and unless specially cleansed and disinfected, soon become irritated, and are often the starting point of fissures and ulcers of the rectum, or catarrh and irritation of the bladder.

The arm-pits and folds of the groins also require special cleansing, as in these regions the ducts of many secreting glands open, and the folds tend to

retain the waste, and the heat favoring rapid decomposition.

The hair is often neglected in cases of severe illness, and is allowed to become matted and foul-smelling. This is a disgrace to a nurse. If the patient is too weak to have her hair combed, it should be cut short and carefully brushed with a soft brush daily. This is no loss of hair, as in all fever cases the hair drops out during convalescence. Keep the scalp clean by shampooing. This will add much to the comfort of the sick one.

Besides keeping the surface and all the orifices of the body absolutely and antiseptically clean, care should be exercised to keep the surfaces whole. Any abrasion or raw surface should be treated at once, and either covered with some soothing aseptic powder or some mild antiseptic ointment. Cold sores are very apt to form on the lips and nose after a cold or an attack of indigestion. They should be healed as soon as possible by strict cleanliness and antiseptic dressing. A powder composed of equal parts of boracic acid powder and bismuth powder is a very good dressing for all raw surfaces, and for burns. Zinc ointment is also good. But before

using either the ointment or the powder, be sure that the parts are cleansed with a disinfecting solution. These powders are also useful in cases of chapped hands and feet, and the chafing of children. In cases of chapping of the hands and feet, so common in the country where children run bare-footed, and where the hands must handle rough articles, soak the parts, cleanse in a warm bath with clean soapsuds, and rinse with clean water, and cover either with boiled vaseline or powder, before going to bed. To keep the ointment on, it is best to cover the feet with an old clean pair of cotton stockings, or the hands with clean washed cotton gloves. After this treatment the hands and feet will be soft and cool in the morning, instead of hard, feverish, and painful.

The sick and helpless also need to have the fingers and toe-nails looked after, and kept clean, and closely pared, as the long nails form a protection for dirt, and retain the germs. Boils, erysipelas, and the like, are often inoculated in other parts of the body by a scratch from foul nails. Disease prevention requires everlasting vigilance on the part of both the nurse and the patient.

AMUSEMENT FOR THE SICK.

To know what to do for the chronic invalid and convalescent to keep the mind pleasantly occupied with outside matters, and to pass the tedious time needed to repair the ravages of disease, is often a very serious matter. The patient himself may read if he is strong enough, but he will soon tire. He may have some light, pleasant occupation, or be talked with or read to by the nurse.

The selection of reading matter for the sick requires thought and skill, and I often think it would be a fine idea for every family to have a scrapbook especially for the sick-room. The sick cannot endure severe or long-continued mental effort, therefore the selections should be short and restful,—a scripture text of faith, hope, and good cheer for the present, to encourage trust in the Father in heaven; a short, pleasant story which tells of some good done, some victory won; scientific facts simply told about the many interesting and wonderful objects of this ever wonderful world; or a pithy anecdote bristling with wit, yet pointed with truth.

The reading selections should be such as will meet the wants of all ages and all classes of minds. The

voracious fiction reader is perhaps the worst to satisfy. The excitement of the sentimental, highly colored, unreal word pictures, the long drawn out, tedious plot, with all its tedious details, are the only reading matter the morbidly educated intellect demands, and all other literature seems uninteresting and insipid. To create a demand for more healthful reading is very difficult when mind and body are weak, yet an effort must be made to put something in the place of this deadly moral and mental intoxicant. A habit of telling stories well will often help out in these cases, and is a valuable means of interesting children. The habit of remembering interesting incidents in real life, and telling them in detail, is always helpful in these cases, and will serve to keep many a restless child in bed, especially if it be a true story about what occurred when nurse or mamma was a little child.

Occupation for the invalid is often necessary, and must be untaxing and amusing, and should be engaged in but a short time. Children delight in cutting out and arranging pictures, cutting paper dolls, or playing with blocks. A dish of water and some home-made boats are often a source of great comfort

to children, who usually enjoy home-made toys much better than boughten ones. As everything has to be destroyed in contagious diseases, this is very fortunate, for the material costs nothing. Adults may find employment in light needlework or knitting. Men and boys often amuse themselves by

whittling. Sometimes a pleasant game will give the needed variation. Whatever the employment,—work, reading, play, or conversation,—it must be short, or it will hinder instead of help, and the nurse must be quick to note the first signs of weariness, and lay the pastime aside at once.

A PATIENT'S bed should always be in the lightest spot in the room; and he should be able to see out of the window.

I need scarcely say that the old four-post bed with curtains is utterly inadmissible, whether for sick or well. Hospital bedsteads are in many respects very much less objectionable than private ones.

There is reason to believe that not a few of the apparently unaccountable cases of scrofula among children proceed from the habit of sleeping with the head under the bedclothes, and so inhaling air already breathed, which is further contaminated by exhalations from the skin. Patients are sometimes given to a similar habit, and it often happens that the bedclothes are so disposed that the patient must necessarily breathe air more or less contaminated by exhalations from his skin. A good nurse will be careful to attend to this. It is an important part, so to speak, of ventilation.—*“Notes on Nursing,”* by Florence Nightingale.

THERE is a prejudice in favor of a wide bed—I believe it to be a prejudice. All the refreshment of moving a patient from one side to the other of his bed is far more effectually secured by putting him into a fresh bed; and a patient who is really very ill does not stray far in bed. But it is said there is no room to put a tray down on a narrow bed. No good nurse will ever put a tray on a bed at all. If the patient can turn on his side, he will eat more comfortably from a bed-side table; and on no account whatever should a bed ever be higher than a sofa. Otherwise the patient feels himself “out of humanity's reach;” he can get at nothing for himself; he can move nothing for himself. If the patient cannot turn, a table over the bed is a better thing. I need hardly say that a patient's bed should never have its side against the wall. The nurse must be able to get easily to both sides of the bed, and to reach easily every part of the patient without stretching,—a thing impossible if the bed be either too wide or too high.

When I see a patient in a room nine or ten feet high upon a bed between four and five feet high,

with his head, when he is sitting up in bed, actually within two or three feet of the ceiling, I ask myself, Is this expressly planned to produce that peculiarly distressing feeling common to the sick, viz., as if the walls and ceiling were closing in upon them, and they becoming sandwiches between floor and ceiling, which imagination is not, indeed, here so far from the truth? If, over and above this, the window stops short of the ceiling, then the patient's head may literally be raised above the stratum of fresh air, even when the window is open. Can human perversity any farther go, in unmaking the process of restoration which God has made? The fact is, that the heads of sleepers or of sick, should never be higher than the throat of the chimney, which ensures their being in the current of best air. And we will not suppose it possible that you have closed your chimney with a chimney board.—*Florence Nightingale, in “Notes on Nursing.”*

SOLDIERS AND SAILORS.—In some of the European services great numbers of the men used to die of consumption and allied diseases and fevers, probably chiefly typhoid. This lamentable result was not in the least due, however, to the exposure to weather, but to what may be called a contrary condition—the want of fresh air in the barracks. In certain of the best English regiments the losses were from one third more to twice as great as among men of the same age in civil life. The fearful loss of life from disease in the Crimea is well known; and it is from that time the reforms date which have brought down the total rates of death from disease to one half of what they were. The present allowance in England is 600 cubic feet of space to each man in barracks.

The ills of sailors are to a very great extent caused by want of fresh air, dirt, and dampness. It is commonly forgotten that, by washing down the deck frequently, a source of disease is introduced which is at least dangerous, and in feverish localities ten times more dangerous, than simple dry dirt. Good ventilation and scrubbing and *drying* are the cure for the chief of the curable ills of ship-life.—*D. F. Lincoln, M. D.*

GOOD HEALTH

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

BATTLE CREEK, MICHIGAN.

BICYCLE RIDING AND DRESS REFORM.

For a third of a century dress reformers have been earnestly laboring in the interest of the emancipation of women from long skirts and constricting bands. That some progress has been made is chiefly due to the persistence with which a few earnest and sensible women have kept constantly before the public the numerous evils which arise from street-sweeping skirts and waist constriction. Commercial interests have also taken a hand in this reformative work, and have unquestionably accomplished not a little in devising convenient and attractive as well as wholesome substitutes for the disease-producing contrivances of the fashion mongers, and in placing them before the public in attractive ways.

For half a score of years the medical profession have been with one voice crying out against the corset, heavy skirts, and high-heeled shoes. Now and then a growing sentiment in favor of the emancipation of woman from the shackles of fashion and conventionalism in dress has shown itself in a spasmodic effort on the part of a few strong-minded women, who, associating themselves together, and binding themselves by a pledge, have adopted some uniform style of dress, such as the Bloomer costume, the Turkish costume, or some other equally wide departure from the conventional mode of dress for woman. After a few days' or weeks' martyrdom, however, these good women have almost without exception returned to their trammels, and generally with a firm resolution never again to attempt such an experiment.

But what women have failed to do in defence of a principle, curious as the fact may seem, is apparently being easily accomplished by the mere love of sport. A few years ago, when a woman appeared upon the street wearing the Bloomer costume, short dress, Turkish costume, or any similar dress, she was compelled to run a gauntlet of jeers and hisses,

scornful looks from other women, rude stares or contemptuous glances from men, and often stones or other missiles from the hands of small boys. But to-day, in every large city, women may be seen in the public parks, on the boulevards, everywhere where the bicycle is permitted, arrayed in a costume so nearly like those of their male attendants that one has to look the second or third time to be able to distinguish a woman from a man. The most popular bicycle costumes do not include even the slight suggestion of a skirt, and represent the trouser idea in its very highest development. Notwithstanding these extraordinary exhibitions in all our principal cities, and many smaller cities as well, only very feeble protests have been made, and these have been few and far between.

For the sake of enabling women to ride the same sort of bicycle which a man rides, and in the same manner and with the same convenience, society has suddenly dropped its old notions about the essential modesty of skirts, and without a groan permits the public to become easily aware of the fact so long carefully concealed in civilized lands, that women as well as men are bipeds. Some years ago, according to a newspaper correspondent, an enterprising manufacturer sent twelve dozen fine silk hose as a present to the queen of Spain. This present was promptly returned with a note from the Lord Chamberlain, who indignantly repulsed the generous intentions of the donor, considering his present as an insult, since, as he asserted, "The Queen of Spain has no legs."

The bicycle seems to have collided with the conventional ideas of dress with so much momentum as to have smashed them, so to speak, into "smithereens," and now that the ice is broken, it may be that women will awaken to the fact that conventionalism is not necessary for existence; that a woman

can be comfortable and still hold her head as high as any other woman, and be as much respected, and no more gaped at as she walks the streets.

The bicycle-riding young woman has found that good wind requires breathing space, and so the bicycle has cut the corset strings as well as abolished the skirts, and a young woman who has had a week's outing on a bicycle without a corset finds it so difficult to squeeze herself into the thing afterward that she is far more ready than before to accept the arguments of doctors and dress reformers against this instrument of torture.

We do not wish to be understood as urging the necessity of the extreme style of dress adopted by many women bicycle riders, or even as expressing our approval of the costume. It seems to us, indeed, quite possible to secure all the essential advantages without the adoption of a dress so distinctly masculine in its appearance. We do not belong to that class of advocates of dress reform who seem to consider the chief aim of dress reform to be to abolish

all difference between the costumes of men and women, or rather to dress women as men dress as nearly as possible. This idea has been carried so far by some as to imitate some of the absurdities and inconveniences of the male costume, such as the stiff shirt-front, the open vest, and the high and uncomfortable collar. The fact is, the conventional costume of men in this country is by no means the ideal dress. Indeed, so much attention and intelligence have been focused upon dress for women within the last quarter of a century that the means are now provided by which a woman may be dressed in a more wholesome and convenient costume than that which men ordinarily wear, and that, too, without departing in appearance from conventional ideas so far as to render herself the butt of ridicule, or even to be especially conspicuous except by greater ease of carriage, a more graceful poise, and a more energetic and healthful countenance. The bicycle is doing a good work for dress reform in the way of breaking down prejudice and changing public opinion.

CLERGYMEN AS HEALTH TEACHERS. — In a speech made before the Sanitary Convention at Union City, Mich., last October, Rev. H. S. Mills remarked as follows: —

“The laws that govern our physical and intellectual natures are just as truly an expression of the will of God, as those that govern our spiritual nature, and the wilful infraction of the one is as truly sinful as the wilful violation of the other. The same God who said, ‘Thou shalt not steal,’ and caused Moses to write it on tables of stone, has said, ‘Thou shalt not eat green apples,’ and caused it to be written on the fleshly tablets of our physical nature. The one law is as plainly the revealed will of God as the other. The will of God as recorded in the experience of the race, is as sacred and authoritative as that recorded in the Decalogue. Punishment follows the breaking of the one as truly as the breaking of the other.

“It is high time that the clergy in its practice and teachings should proceed upon the basis that all God's laws are authoritative, whether they apply to the body, the mind, or the spirit. And the church is waking up to the fact. Its ministers formerly handed men over to the physician in all things that pertained to the body, and to the school-teachers in all things that pertained to the mind, and was very careful to keep himself within the limits of the

spiritual in his ministrations. But now he tells men that God loves *them*, not their souls exclusively. He explains the nature and application of God's laws to the mind and body as well as to the spirit, and insists upon obedience to them. And I have not heard that the physician or the teacher have charged him with an invasion of their territory. The minister of the gospel is by so much less a true minister of the whole gospel if his ministrations do not extend into the physical and intellectual realm. I might also add that the physician is by so much less a true physician, and the teacher is by so much less a true teacher, if he is incapable of ministering in the spiritual realm. While the physician, the teacher, and the minister each has his special department, each must, if he would fill out the full measure of his usefulness, be able to minister to the whole man.”

We have seldom encountered expressions from clergymen which we could more fully endorse than the above.

INSANE FROM CIGARETTES. — A young man was recently arrested in Atlanta, Ga., for killing a watchman. On investigation it was found that he was insane as the result of smoking cigarettes. Insanity from cigarette smoking is a very common occurrence.



THE HOT PACK IN WHOOPING-COUGH.

SINCE the vast majority of children who suffer from this disease recover from it, little ones attacked by the malady are for the most part, left to wear it out with little or no medication or treatment. The disease is thus left to run on, in some cases for many weeks or even months before the little one is entirely rid of the malady, and not infrequently the respiratory or vocal organs are so damaged as the result, that complete recovery never occurs. Sometimes the foundation of grave and ultimately fatal pulmonary disease is laid. Much can be done to ameliorate the sufferings of these patients and abbreviate the course of the disease. Great pains should be taken to clothe the child warmly to prevent sudden chills from exposure to draughts. He should be given a careful dietary, meats and unwholesome things of all sorts being excluded. Buttermilk, gruels, and cooked fruits constitute the best diet. Great pains should be taken to keep the bowels and the kidneys active. Copious water drinking is one of the best means of accomplishing this.

The best means of relieving the intense pulmonary congestion present in this disease is the hot blanket pack. This is given as follows: Spread out upon

the bed, first a comfortable or quilt, then a woollen blanket, or two or three woollen blankets may be used in place of a comfortable. Now wring out of hot water a woollen sheet. The water should be as hot as can be safely used, and the sheets should be wrung as dry as possible. Spread out the sheet quickly and having previously undressed the child, place him at once upon the sheet and envelop him first with the moist sheet, tucking it in closely about the shoulders and around the limbs and body, then, one by one, draw over the dry blankets, tucking them in in the same manner. If the child is restless, one or both arms may be left outside of the wet sheet. The child should be left in the pack for an hour or two, until vigorous perspiration is induced. After the pack is over, wrap quickly in a dry blanket and put to bed, taking care that the patient is not chilled in the slightest degree. If the child seems to be too weak to expel the secretions from his throat, a cold pack may be employed, and is much used by German physicians. A moist compress wrung dry and well covered first with dry, then with oil muslin, or some other impervious material, may be kept constantly about the chest with advantage.

THE HYGIENE OF THE FEET.—Dr. Brewer writes as follows in the *Medical World*, respecting the relation of dirty feet to poor health:—

“A patient of mine suggested to me that if I washed my feet every night in warm water and dashed them into a cold bath afterward, I would find my rheumatic troubles relieved.

“Now once a week I have been accustomed to bathe my feet, and considered I was an average clean person. By following out the advice I find that it has greatly assisted in relieving me of periodical attacks of migraine, and for a wonder it

has greatly helped an acidity of the stomach which had afflicted me very much. He claims (being an electrician) that man requires to come in contact with the earth, and that incrustations on the feet become non-conductors of electricity. He eschews rubbers, and cites statistics to prove that people who go the nearest barefooted are more rugged and exempt from colds. I am convinced that there is a grain of truth in the statement.

“Rubbers make one feel uncomfortable, and what a relief it is to let the cold air play on one's feet after being closed up in air-tight coverings

all day! Is it possible that dirty feet produce or aggravate migraine?

"He claims an exemption from rheumatism to those who will go barefooted and follow out his doctrine, for I have seen him wade in the snow barefooted. He may have borrowed the suggestion from the Jesuit father who claims to cure all diseases by walking on ice or in snow.

"In these days of artificial heat, food, and vitiated atmosphere, it is a great wonder there is not greater mortality than there is."

These remarks are interesting, though the writer does not seem to have discovered the real reason why the foot-bath has proved to be so efficient a cure of rheumatism, indigestion, etc. An application of cold water to the feet is a most powerful tonic; it reacts not only upon the stomach but upon the central nervous system and the entire body. Still further benefit may be derived from the application of cold water to the whole surface of the body. A cold morning bath is not only a cure but an excellent preventive of rheumatism, only the rheumatic sufferer must be very careful to accustom himself to cold water by very slow degrees, beginning with warm water. The cold morning bath prevents taking cold and develops the resistance of the body. The daily cold foot-bath is better than no bath at all, but better still is a bath in which the water touches every square inch of the surface of the skin.

HOW TO REVIVE A PERSON IN ASPHYXIA.—Dr. Laborde recently reported before the Paris Academy of Medicine a case in which a newborn infant, apparently dead at birth, was recalled to life by rhythmical contraction of the tongue for ten minutes. Artificial respiration, flagellation, etc., were tried without success. Rhythmical contraction of the tongue was also recommended by Prof. Gariel, to be used in connection with artificial respiration in the treatment of persons rendered insensible by electric shocks.

TELEPHONE GERM DISEASES.—The medical journals of Paris are considerably agitated over the possibility of the communication of microbic diseases by means of the telephone. This is a subject which doubtless ought to receive more attention than has hitherto been accorded it. Many persons, in the use of the telephone, allow the ears or the lips to touch the ear-piece or the mouth-piece of the instrument, and, by so doing, may contaminate it, if suffering from disease, or may become contaminated if the instrument has become contaminated by con-

tact with a diseased person. Some means ought certainly to be provided by which this source of danger may be avoided.

GASTRIC ULCER.—The method proposed by Boas, and which we have used successfully in several cases, consists in giving the stomach absolute rest, and feeding the patient by means of an enema consisting of six ounces of milk thickened with a little starch, two eggs beaten, and a half dram of salt. This should be administered once in four hours, while the patient is awake. Care should be taken to wash out the rectum at least twice a day.

The addition of a tablespoonful of fluid malt is an advantage when starch is employed in connection with nutritive enema.

DISINFECTION OF VAULTS AND CESSPOOLS.—Dr. Vincent recently reported to the Academy of Sciences at Paris, the result of experiments for the purpose of determining the best disinfectant for rendering fecal matters innocuous. He required of each disinfectant that it should kill all pathogenic microbes, including the bacillus coli communis and the bacteria of putrefaction. His experiments showed that the best of all disinfecting agents for the destruction of fecal matters in vaults and cesspools is sulphate of copper employed in connection with one per cent of sulphuric acid. The quantity of sulphate of copper required was one pound for every three cubic feet of fecal matter mixed with urine. Half this quantity was found sufficient to destroy the cholera bacillus. It was found necessary that the disinfectant should remain in contact with the infectious material for at least twelve hours.

EXERCISE AFTER EATING.—It has long been a mooted question whether or not exercise should be taken directly after a meal. Experiments made long ago by English physiologists established that very violent exercise after eating prevents digestion altogether. But recently, Drs. Surmont and Brunelle, two French physiologists, have shown that moderate exercise increases the secretion of gastric juice in the stomach, and hence is an aid to digestion in cases of persons suffering from hypopepsia. It is evident, however, that in cases of hyperpepsia, exercise should be avoided after meals. Exercise seemed to have no effect upon the length of time the food remains in the stomach, that is, it did not increase the strength nor the number of contractions of the stomach, notwithstanding the decided influence upon secretion.

ANSWERS TO CORRESPONDENTS.

NEURALGIA.—M. A. D., Mich., asks: "1. What causes neuralgia? 2. What is the proper treatment for it?"

Ans.—1. Neuralgia is due to a variety of causes; the most common cause is some disturbance of the sympathetic nerve due to indigestion or displacement of some of the organs of the abdomen.

2. The cause must be discovered and removed. If the cause is displacement of the stomach or kidney, the clothing must be adjusted so as to give the stomach and other organs room to occupy their normal positions. If the disorder is due to indigestion, a proper diet must be carefully selected and rigidly adhered to. Improvement of the general health, by the judicious employment of baths, electricity, and out-of-door exercise, is frequently sufficient to effect a cure.

IRREGULAR MENSES.—W. A. R., Mass., writes: "A young relative is greatly troubled in this way. She is now twenty-five years of age and has been a sufferer for years. The attacks arrive semi-monthly with great regularity, and there is consequent debility and weakness. Her life is thus rendered miserable, and spirits clouded and depressed. Please advise in the matter."

Ans.—The case should be carefully examined by a skillful physician and the exact condition determined. There may be some growth which needs removal. The condition may be wholly due to disease of the ovaries. Bad dress, indigestion, errors in diet, general impairment of health—these and other causes may be responsible for the condition.

UMBILICAL HERNIA—COATED TONGUE.—A subscriber writes thus: "1. Please tell me what to do for a slight pouching of the navel in my fifteen-months-old girl. I have placed a bandage around the child, using a thin slice of cork to hold the tissues in place. This has appeared several times before, but the swelling has shortly gone down. She is well otherwise. Her diet since weaning has consisted chiefly of whole-wheat in some form, milk, and fruit. 2. What else should I add? 3. Why is it that one side of my tongue (the right side) is coated and the other perfectly clean?"

Ans. 1.—The remedy you have adopted is a suitable one. If you do not succeed in adjusting the bandage properly, so that the hernia protrusion is retained within the abdomen, call upon a physician to adjust a truss for you. If the truss is constantly worn, the child will probably recover, but must always be careful to avoid straining, heavy lifting, violent coughing, etc.

2. Do whatever you can to build up the child's health. She should especially be given a good opportunity for physical development.

3. It is quite probable that one side of the tongue is denuded of epithelium.

DR. TRALL.—W. H., Iowa, inquires concerning Dr. Trall, "If he is dead, please give date of his death."

Ans.—Dr. R. T. Trall died some seventeen or eighteen years ago.

DYSPEPSIA—NEURASTHENIA.—J. W., Tenn., writes: "1. One of the principal symptoms of dyspepsia, as given by Dunglison, is loss of appetite. Is it not possible that a person may have even a ravenous appetite, and still be suffering from indigestion? 2. How does neurasthenia differ from nervousness or nervous debility?"

Ans.—1. Yes.

2. Nervous dyspepsia is a variety of neurasthenia, so called. It is technically termed "gastric neurasthenia."

BUCKWHEAT FLOUR—RHEUMATISM.—D. E. A., Pa., inquires: "Will the every-day use of buckwheat flour as an article of food have a tendency to produce rheumatism?"

Ans.—No.

MILK FROM LUMPY-JAWED COW.—W. J. K. Colo., writes thus: "1. I have a fine young Jersey cow that has the big jaw. She got it hurt about a year ago. She is in a thriving condition with this exception. Would her milk be fit for use in the family if boiled? 2. Could the trouble be cured?"

Ans.—1. No one might die in consequence of using such milk, but it is, nevertheless, contrary to good sense and good hygiene. It must be more or less conducive to disease.

2. Probably not.

STRAINED EYES.—Mrs. J. B., Neb., asks: "1. Would a scant teaspoonful of sulphate of zinc in a pint of water make a good lotion for strained eyes? 2. I was told that a drop or two of the solution put in each eye at night would be beneficial. Is there anything injurious in the solution?"

Ans.—1. No.

2. The lotion might benefit your eyes, but if so, it would be from relieving the irritation, not from relieving the strain. A drop or two of the lotion might not do any harm, but you should place your case under the care of a good physician.

SWELLED AND PAINFUL FEET.—A correspondent signing herself "Lux," writes thus: "A person somewhat advanced in years, and one whose occupation has required much standing, is greatly troubled with her feet. They swell, and are very painful at night. The veins in the feet are varicose, and the toes are very sore at times. Is there any treatment which will give relief?"

Ans.—It is quite possible that this person is suffering from flatfoot, or weakness of some of the joints of the foot. A varicose condition of the veins may be responsible for the condition. Alternate hot and cold foot-bath and rest are likely to be of service. Some apparatus to support the arch of the foot may be required.

THE ELECTROPOISE.—A Reader, N. Y., writes: "1. Please give me your opinion of the remedial value of the instrument called the 'Electropoise.' 2. Would you recommend its application in a case of premature decay?"

Ans.—1. We have a very poor opinion of the electropoise.

2. No.

ACID FRUITS—STARCH—GRAINS, ETC.—S. R. L. M., Col., writes as follows: "I understand that Dr. Kellogg states that acid fruits and starch should not be eaten at the same meal. This leads me to ask the following questions: 1. Do not grains of all kinds contain starch? 2. Does not graham bread, bolted flour bread, or, in fact, any kind of bread or porridge, contain starch? 3. Do not all kinds of vegetables contain starch? 4. If milk and sugar do not form a good combination, then does the cooking together of these two articles, in custards, etc., form a wholesome food? 5. My daughter, sixteen years of age, can ride in a wagon in the winter when it is cold, and in the nights of the summer season, but if during the daytime she rides only two miles in warm weather, whether the sun is very hot or not, she suffers for from one to three days with severe headache and sick stomach. She has cold feet and hands a good deal of the time. We have given her treatment as prescribed in the 'Monitor of Health,' and her hands and feet are warmer, but the headaches are as frequent as ever. She lives on a simple vegetarian diet. What can be the cause of such attacks?"

Ans.—1. Yes.

2. Yes.

3. Yes; practically so.

4. No.

5. The daughter is an invalid and ought to have a thorough course of treatment. We would advise you to bring the patient to the Sanitarium for the special care which she requires. She very likely has a dilated stomach.

INDIGESTION—BURNING SENSATION BELOW STOMACH—CRAMPS, ETC.—S. G. D., La., writes thus: "1. I am a young man of thirty-one, and of exceedingly nervous temperament. For several years have been suffering from indigestion and irritating urine. I have an excellent appetite and eat heartily, but from one to three hours after eating I have a burning sensation in the intestines just below the stomach. This burning comes and goes and varies in intensity, but can relieve it by eating. I have much gas in the bowels and also frequent cramps or colic. Bowels are regular. I relieve the intensity of the irritating or burning urine temporarily sometimes by drinking freely of water. Is there any permanent relief for it? 2. I use no tobacco nor coffee. What can I do for the burning below the stomach? 3. My occupation is teaching, but I manage to walk four or five miles every day. Is not this sufficient exercise? 4. Is milk good for me? 5. Would the addition of lime water be beneficial? 6. Can moles be removed with safety?"

Ans.—1. Yes.

2. Fomentations applied over the stomach at night, to be followed by a moist abdominal bandage to be worn over night, and a proper regulation of your diet will probably give you relief. We would recommend that you obtain a catalogue of the Sanitarium Health Food Company's products, many of which you will find especially adapted to your case.

3. Not for a sedentary man of your age.

4. Probably not.

5. It might be.

6. Yes.

PLANTS IN SLEEPING-ROOMS.—Mrs. H. W., Iowa, asks: "Is it an unhealthful practice to sleep in a room that has house plants in it?"

Ans.—A few plants in the room would certainly do no harm, but a greenhouse would not be a good place in which to sleep habitually.

BROWN SPOTS ON THE BODY.—O. C. T., Neb., asks the following questions: "1. What causes brown spots to appear on the body, particularly the trunk? 2. Is it a skin disease? 3. What causes them to spread and increase in size when the digestion and general health is better than when they first appeared? 4. How can they be removed?"

Ans.—1. This appearance is sometimes due to parasites. Sometimes it is due to some nervous disturbance.

2. Yes.

3. If parasitic in character, they may extend in spite of improvement of digestion.

4. You should consult a physician, who should first ascertain the nature of the spots, then the proper remedy can be applied.

GROWTH ON THE SIDE, ETC.—Mrs. M. M. S., Mo., writes: "1. I am forty-three years old, and have always enjoyed good health until a few months ago a lump began to form on my left side. It is now about the size of an egg, and though it was not painful at first, it now has shooting pains. My physician thinks it a 'cold abscess.' Is there such a thing? 2. From this description what would you suppose it to be? 3. What treatment would you advise? 4. My daughter of seventeen since having pneumonia two years ago has pain in left side, sometimes slight, and again severe. What is the probable cause? 5. Please advise me what to do."

Ans.—1. Yes.

2. The physician's diagnosis may be correct.

3. If a cold abscess, it should be treated by a skilful physician. It may be best to open it freely, or it may be more advisable to remove the fluid by aspiration.

4. The cause may be adhesion of the lung to the chest wall, or may be simply neuralgia.

5. Fomentations applied daily will be likely to give relief.

"BETON'S BRITISH OIL."—J. W. G., Cal., writes: "Please publish the formula for 'Beton's British Oil.'"

Ans.—We do not know the formula for this nostrum. Perhaps some of our readers do. If so, we shall be glad to receive it.

THE "THERMAL BATH CABINET"—BICYCLE RIDING.—J. B. F., Ind., writes thus: "1. Please give your opinion of the claims for Robinson's 'Thermal Bath Cabinet.' 2. Is the claim of that company correct, that it will take the place of exercise for a man of sedentary habits? 3. What would you advise as regards bicycle riding to a man suffering from piles? Would it be beneficial or injurious?"

Ans.—1. We know nothing about it.

2. Certainly not.

3. The effect would be very likely to be injurious.

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 as 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 recommendation.]

Nos. 262 AND 263.—A little boy and girl eight and six years old living in Pennsylvania have been brought to our attention. They are motherless, and their father, being in very poor circumstances, needs assistance. He desires to place his children in the homes of Christian people. We learn that they are good children, easy to teach, and of good appearance. They are now with their aged grandparents, who cannot care for them longer.

No. 270 is a boy ten years old, living in Ohio. His father is dead, and his mother is in such poor health that she cannot care for him. He has brown eyes and hair. His health is good. He has never been sick. He is said to have a kind disposition, and has not been neglected.

No. 281 is a Swedish boy ten years of age, with brown eyes and dark hair, and having good health. No. 282 is his brother, seven years of age. He has blue eyes and light hair. The father and mother of these children are both dead, and they have been cared for by their grandparents for three years. They cannot provide for them longer, and rather

than place them in the poorhouse they apply for a home in a private family.

No. 283 is a little girl five years old who is now living in Indiana. She has blue eyes and light hair, is in good health, is said to be obedient, and religiously inclined, also very affectionate toward those with whom she associates.

Her brother, No. 284, is three years of age, with blue eyes and light curly hair. He is an active little fellow, in good health, and admired by those who know him. The father has had chances to place these children in homes, but he is anxious that they be placed in a Christian family. The father has cared for the children, but he is unable to care for them and earn a living too. He will be glad of some assistance. Only those who can give these children religious as well as educational advantages need apply.

Nos. 285 and 286 are boys living in Pennsylvania. Their condition is like several that have been referred to us before, and from what we learn of them we are satisfied that they are worthy of help. Their father is dead and the mother not able to care for them. She has tried for the past few years to keep them with her, not wanting to part them, but has now reached the point where she can see no other way than to place the children in homes. The boys are seven and eight years old, have blue eyes and brown hair, and are in good health. The mother has kept them with her most of the time.

No. 287 is a little nine-year-old boy living in Michigan, whose mother desires to place him in a Christian home. His father has deserted him, and his mother is not able to support him. He has blue eyes and light hair.

Nos. 288 AND 290.—The mother of these two children died a short time ago. Their father's health is so very poor that he is not in a condition to support them, and hence is very anxious to find homes for them where they will receive Christian care and training. The oldest is a girl of ten years, with brown eyes and hair, and in good health. Her brother is six years of age. He also has brown eyes and hair, and is said to be genteel and manly in appearance. These children have always been under their mother's control, and have not been allowed to run in the streets. They are living in Michigan.

Nos. 293 and 294 are girls living in Pennsylvania. Their mother is dead and the father is an inmate of the poorhouse. He is unable to provide for the children, and is very anxious to secure good homes for them. The girls are twelve and nine years old and have dark eyes and hair, are in good health, and have good dispositions. Is there not a home in one of the Eastern States that will open its doors to these children who are in such great need?

Nos. 298 and 299 are two little girls aged eight and six years respectively, who are living in one of the New England States. They have blue eyes and light hair, and have had the best of training while their mother was alive. The father is very anxious to find good homes for them, as he does not feel competent to give them proper care and training. Here is a chance to do real missionary work.

Nos. 301-303.— These are three children living in Indiana, whose father has deserted them, and the mother rapidly failing in health is very anxious to find good Christian homes for them. The oldest is a girl eleven years old, with brown eyes and light hair. The little girl five years old is a sweet-appearing child, with light hair and blue eyes. Their brother is eight years old, with brown eyes and hair. They have been under their mother's control and not allowed to run in the streets. Who will relieve this mother's anxiety by offering homes for these children?

No. 305 is a boy twelve years old living in Michigan. He has been abandoned by both father and mother. He has good health, and is a bright, kind-hearted boy with blue eyes and light hair. He needs careful training, but Christian influence and love will doubtless yield a rich harvest.

A LADY who has taken an orphan child writes as follows:—

"I will write you a few lines in regard to the little girl I have taken. We all love her, and find it a pleasure to care for her. She seems to be happy and contented, and I think will prove a blessing. I have not once regretted taking her."

From a lady in South Dakota we have received the following:—

"I will gladly reply to your letter received a short time ago. Will say in regard to the little orphan girl that I have taken into my home, I do n't think that we could get along without her now. I think we have got one of the loveliest babies I ever saw. She never cries unless she is sick or frightened. She is quite a

timid little thing, afraid of strangers, but everybody loves her that sees her. She was a poor weak little thing when she came to us, nearly starved to death, but does not look as though she was starved now. I wish you could see her. We all love her dearly. My little girl, eleven years old, often says there is not money enough in the whole world to get her away from us. I feel so thankful that I can give a home to one little homeless child, and it is my daily prayer that I may train her up in the right way, that she may have a home in the kingdom. We all feel that the little one has paid us well for our trouble thus far, with her little smiles and love."

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 references. If possible, these should be known, either personally or by reputation, to some member of the Board of Trustees.

PERSONS intending to visit the Haskell Home will please note that the visiting days are Sundays and Wednesdays, from 4 to 6 P. M. J. H. KELLOGG.

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 at 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 disorders of all sorts, as well as scarlet fever, measles, mumps, diphtheria, 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 clothes 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 is 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 mission should be sent to Chicago Medical Mission, 40 Custom House Place, Chicago, Ill.

LITERARY NOTICES.

THE FUNK AND WAGNALLS STANDARD DICTIONARY. —The Standard has a vocabulary of more than 300,000 words, by actual count, as against 225,000 in the Century, 125,000 in the International (Webster's), 105,000 in Worcester's, and 50,000 in Stormouth's. This increase of 75,000 words over a dictionary published so recently as the first named of these, indicates much more than appears on the surface. It seems while there are comparatively few unimportant terms treated, that all literature has been ransacked for its unrecorded important terms, and that all the trades and the arts have been laid under contribution (in electricity alone something like 4000 new terms have been entered and described). It means, too, as gleaned by research in trial lines, that the characters in the principal mythologies of the world have been given; the terms in mysticism, formerly accessible only in special works, the very names of which were unknown to the general reader, have been gathered together and adequately explained; the science of Buddhism, with its little understood beliefs and system of worship, has been unfolded by Max Muller himself. From such valuable and not always accessible sources as these, and the kindred lines of recent scientific investigation and economic study, have come these 75,000 words more than the Century, and 175,000 more than Webster's International. They represent the onward march of science, literature, art, and labor in the last decade—in a word, the progress of the human race itself.

THE most striking paper of general interest in the August *Arena*,—the one that will surely be read from Atlantic to Pacific,—is Mrs. Helen H. Gardener's review of recent age-of-consent legislation in the United States. She deals with the bills that have been introduced in the various States, and gives the history of the three bills passed in New York, Arizona, and Idaho, raising the age to eighteen. Mrs. Gardener bases the demand for fuller protection to young girls, not upon any moral or religious views, as these vary according to birth and training, but upon the legal rights which are recognized in property and citizenship.

THE idea that ten cents for *The Cosmopolitan* means inferiority from a literary point of view is dispelled by the appearance in the August number, of such writers as Sir Lewis Morris, Sir Edwin Arnold, Edgar Fawcett, Tabb, W. Clark Russell, Lang,

Sarcey, Zangwill, Agnes Repplier, etc. Nor can we entertain the idea of inferiority in illustration with such names as Hamilton Gibson, Denman, Van Schaick, Lix, Sandham, etc., figuring as the chief artists of a single month's issue.

GOOD HOUSEKEEPING for August teems with interesting matter relating to all phases of the home life. As usual, there is a strong flavor of the passing season, and the housewife who desires recipes for jams, jellies, pickles, and preserves will find them in abundance; the lover of a pleasing story or a fresh bit of verse will be gratified; in the department of "Food for the Family," some of the less common fruits are discussed; there are suggestions for entertainments, and for making the home attractive. Clark W. Bryan Company, publishers, Springfield, Mass.

"A NOBLE LIFE."—The National Temperance Society and Publication House, 58 Reade St., New York City, have issued a memorial pamphlet of 64 pages, with portrait cover, sketching the life and work of the late John Newton Stearns. The pamphlet contains a sketch of his early home life, his citizenship, his religious work, and his great temperance life work. There are interwoven in the various phases of his life, tributes to his worth by many noted men and women, the National Temperance Society through its Board of Managers, the Press, etc. Among those who contribute are Rev. Dr. T. L. Cuyler, Dr. T. De Witt Talmage, Gen. Neal Dow, Joseph Cook, George W. Bain, John Wanamaker, and many others. Extracts are given from the terse and forceful writings of Mr. Stearns himself. This pamphlet should have a wide circulation for the good it may do the temperance cause. Every home, school, juvenile temperance society, or temperance organization library should have a copy as a help to others to imitate this noble life. The price is only 10 cents, \$1 per dozen, post-paid.

"NURSERY ETHICS" is the title of a valuable little volume upon parental government which The Merriam Company of New York City are about to issue. It is from the pen of Mrs. Florence Hull Winterburn, the editor of *Childhood*, and is marked by the practical good sense and deep insight into human nature which have distinguished the many articles that have appeared from time to time under her name.



HYDROZONE

IS THE STRONGEST ANTISEPTIC KNOWN.

One ounce of this new Remedy is, for its Bactericide Power, equivalent to two ounces of Charles Marchand's Peroxide of Hydrogen (medicinal), which obtained the Highest Award at the World's Fair of Chicago, 1893, for its Stability, Strength, Purity and Excellency.

CURES DISEASES CAUSED BY GERMS:

DIPHTHERIA, SORE THROAT, CATARRH, HAY FEVER, LA GRIPPE,—OPEN SORES: ABSCESSSES, CARBUNCLES, ULCERS,—INFECTIOUS DISEASES OF THE GENITO-URINARY ORGANS,—INFLAMMATORY AND CONTAGIOUS DISEASES OF THE ALIMENTARY TRACT: TYPHOID FEVER, TYPHUS, CHOLERA, YELLOW FEVER,—WOMEN'S WEAKNESSES: WHITES, LEUCORRHOEA,—SKIN DISEASES: ECZEMA, ACNE, ETC.

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Cures

Diseases of the Stomach

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28 Prince St., New York.



BATTLE CREEK (MICH.) SANITARIUM

HEALTH FOODS



ESTABLISHED 1876

Food Cure for Constipation.

AN inactive state of the bowels is one of the most common causes of many serious maladies. Chronic headache, biliousness, hemorrhoids, backache, and perhaps more serious constitutional ailments, may be readily attributed to habitual constipation.

**MINERAL WATERS, LAXATIVES, "AFTER-DINNER" PILLS, DO NOT CURE.
ORIFICIAL SURGERY DOES NOT CURE.**

Constipation is due, in the majority of cases, to errors in diet, and hence can be best cured by diet. An excellent remedy for this common malady has been found in **Granose**, a new food recently invented at the Battle Creek Sanitarium, where it is extensively employed as a food remedy in many forms of indigestion, especially in cases of constipation.

GRANOSE CURES CONSTIPATION,

Not by producing a laxative effect, but by removing the cause of the disease. Granose is prepared from wheat. It is not a medicine, but a food so delightfully crisp, delicate and delicious that everybody like it. **Try it.**

A well-known Boston merchant writes of Granose: "The Granose is splendid; everybody is after it at our table."

SANITARIUM HEALTH FOOD CO., Battle Creek, Mich.

PUBLISHERS' DEPARTMENT.

THE SANITARIUM IN COLORADO.—The Colorado Sanitarium, which has for a number of years been projected by the managers of the Battle Creek Sanitarium, has at last been located at Boulder, Colo., where a proper site has been selected, and suitable buildings are now being erected. Two cottages are already completed and are occupied. A large main building capable of accommodating one hundred patients or more is being rapidly pushed to completion, and will be in readiness for occupancy the coming winter. A large number of patients have already been successfully treated at the sanitarium, which has been conducted during the last year in rented buildings. Several recoveries which seem little less than miracles have occurred. The experiment of combining the thoroughgoing rational treatment employed at the Battle Creek Sanitarium in the treatment of these cases, and often with successful results, with the great advantages of the climate of a mild elevation, has never before been tried. We have had great faith that the results would be highly gratifying, but were really unprepared for results of so extraordinary a character as have already appeared. As a single illustration we might mention the case of a lady who was suffering from advanced tuberculosis, the disease having affected the throat as well as the lungs. The patient had a continued high temperature, constant cough, was much emaciated, and very weak. Although regarding her case as practically hopeless, we recommended her to go to Colorado, where she has had the benefit of skilful sanitarium treatment in connection with the climatic advantages afforded at Boulder. For some months it seemed quite doubtful how the struggle would end, but the patient kept up courage and was finally rewarded for her perseverance by so great an improvement in health that she has been able to spend the summer with her friends in the South. A letter recently received from her husband tells us that she is recovering her voice, that her general health is excellent, and that she expects soon to return to Boulder for a few months more of treatment, which will restore her to sound health.

Several other equally remarkable cures might be mentioned, one that of a young lady, a medical student, whom we sent to Colorado last spring. The disease had only recently been discovered, but great numbers of tubercle bacilli were found in the sputum, so there was no doubt as to the nature of the malady. One lung was beginning to break down, and it was evident that something must be done at once. This patient already reports herself to be in perfect health. She is as active as ever, and will shortly return to her medical studies.

We might easily relate half a dozen similar cases which illustrate the great advantages of hygienic treatment combined with the exceptionally favorable climate of Boulder. We know of no place in the United States where a person suffering from tubercular disease of the lungs or pulmonary consumption can receive so excellent an opportunity for recovery as at the Colorado Sanitarium, located at Boulder.

The site selected for the institution is a particularly favorable one. It includes a large tract of land which comprises a fine peak admirably suited for laying off graduated walks for climbing. It overlooks the beautiful city of Boulder and a wide stretch of country. The building itself is pro-

ected by the peak behind it from the prevailing winds during the winter season,—a very important consideration in Colorado. The medical management is in charge of Dr. O. G. Place, formerly of the Battle Creek Sanitarium. Mr. A. R. Henry, a member of the Sanitarium Board of Directors, is president of the local managing board. The institution is conducted under the general supervision of the Medical Missionary Board, which conducts the medical missionary work in Chicago and in Mexico, and has charge of several other sanitarium enterprises.

* *

THE SANITARIUM IN OLD MEXICO.—For a number of years we have recognized the desirability of a sanitarium in Old Mexico as a place for a certain class of invalids to spend the winter, especially consumptives who are not able to endure a temperature below the freezing point. The great majority of chronic invalids, it is true, are benefited by cold air, and even changeable weather is not altogether unfavorable, if met by careful regulation of clothing, since it acts as a sort of vital stimulus, a kind of vasomotor gymnastics. Nevertheless there is now and then an invalid whose constitution is so greatly enfeebled by disease, and his powers of reaction are so diminished, that it is unsafe for him to expose himself to a low temperature. For such persons, the high, dry tablelands of Old Mexico afford a safe retreat during the winter months. The southern part is, for the most part, so little elevated and so near the sea that the air is constantly moist, and cloudy weather prevails. A few elevated regions, like Nashville, which is some fifteen hundred feet above the sea level, have acquired a great reputation as winter resorts for consumptives, on account of the comparatively moderate weather, the greater amount of sunshine, and the greater dryness of the air. Such regions as Florida, Alabama, and the coast portion of Texas, have long been regarded as highly unfavorable to the cure of tuberculosis. The warmth of these regions secures comfort to the consumptive, yet the disease progresses more rapidly than in more northern regions, so that the general effect on consumptive patients who visit these localities is to die sooner, though more comfortably, than if they had remained at home. After exploring Mexico from its northern border as far south as Cordova and Vera Cruz, Mr. Jones, the agent sent out by the Medical Missionary Board for the purpose of selecting a suitable site in Mexico, fixed upon Guadalajara, which is located a little north of the City of Mexico, and within about two hundred miles of the Pacific Ocean, at an elevation of almost exactly one mile above sea level.

The monthly reports received from Mr. Jones during a residence of a year and a half at Guadalajara, show this climate to be peculiarly adapted to the treatment of consumptives and feeble invalids. Mr. Jones, himself a victim of tuberculosis, having had a number of hemorrhages and all the evidences of advanced tubercular disease, reports himself as able to shout as loud and run as far as ever before in his life, though he is no longer a young man. Pulmonary tuberculosis is an exceedingly rare disease in Guadalajara, in fact, it may be said to be unknown among the natives, at least this is the report of resident medical men of good standing.

PUBLISHERS' DEPARTMENT.

The Medical Missionary Board, which has established a sanitarium at Boulder, Colo., has finally decided to erect a sanitarium at Gundalajara. The committee is on the ground making arrangements for the purchase of a site, and a suitable building will soon be in process of erection. This is the first sanitarium in Old Mexico, and we believe the enterprise will prove a great success.

* *

THE patients at the Battle Creek Sanitarium are enjoying greatly the big swimming bath recently completed at that institution. Special classes for instruction in swimming are given to both ladies and gentlemen. Every woman, as well as every man, ought to know how to swim. Children should be taught swimming as one of their most necessary accomplishments. The ability to keep afloat in the water, even for a few minutes, would have saved many valuable lives which have been lost by some unforeseen accident. Swimming is, besides, a healthful exercise, and one which should be encouraged to a greater extent than heretofore among all classes. Swimming baths ought to be provided in all cities which are not favorably located for instruction in the art in natural lakes or watercourses. The expense of maintaining a swimming bath is, of course, very considerable, but this can be easily met in any city of respectable size by charging bathers a small sum for the use of the bath.

* *

GRANOSE.—This new health food is earning for itself an unexampled reputation. Nothing that has ever before been produced in the line of health foods has proved to be so nearly a panacea for that most common ailment in civilized countries—inactivity of the bowels. Thousands of people annually resort to mineral springs, and many thousands more are in the habit of daily consuming quantities of laxative mineral waters for the purpose of correcting this morbid state. There is probably no one morbid condition which is responsible for a greater number of distressing ailments than constipation. Headache, nervous disorders of various sorts, Bright's disease, and other equally serious maladies may be directly traced to a chronic inactivity of the bowels, and the retention of great quantities of poisonous matters resulting from this condition so weakens the resistance of the body as to produce a predisposition to many other maladies.

A food remedy, like granose, is consequently a boon, since its habitual use in no way lessens its effect. The great majority of persons who are chronic sufferers from inactivity of the bowels find themselves permanently relieved within a week after beginning the use of granose freely as an article of diet. Two or three ounces of granose should be taken at each meal; preferably it should be eaten dry. It is a food which contains all the elements of nutrition representing entire wheat, hence not only relieves the morbid condition referred to, but is the best possible means of affording the body the choicest elements of nutrition for the development of pure blood, sound nerves, strong bones, and vigorous muscles. It is not too much to say that granose is an incomparable food.

Another merit possessed by this new food, is the fact that one of its chief properties is a delicious crispness which ren-

ders it immediately acceptable to every taste. It is not necessary to cultivate a liking for it, and, like good bread, it combines well with every other article of food, and one never tires of it.

* *

Mrs. A. H. Cox, chairman of the Committee on Household Economies of the Woman's Department at the Cotton States and the International Exposition, to be held in Atlanta, Ga., Sept. 18 to Dec. 31, 1895, is enthusiastic over an exhibit in the form of an object lesson in domestic economy and culinary science. It is a part of the New York exhibit at the Exposition, and will be a model workingman's home. A neat cottage, such as can be built for less than one thousand dollars, will be erected, and furnished on a scale of expense suited to the income of an average workingman, or an income of five hundred dollars, with a wife and four children. Every item of expense in the way of dress, food, clothing, etc., will be prescribed, and a real live family will live in the house. It will be demonstrated that they can live comfortably on this sum. The full arrangements of the house will be shown, and the bill of fare cooked for every meal of the year at market prices.

* *

GOOD HEALTH LIBRARY.—The publishers of GOOD HEALTH propose to begin at an early date the publication of a series of small tracts and booklets under the general title, "The Good Health Library." The following is a partial list of the numbers in preparation:—

- "Household Germs."
- "A Toothless Race."
- "Death in the Pot."
- "The Smoke God."
- "The Troglodytes."
- "Combating Germs in the Sick Room."
- "The White Plague."
- "Our Hidden Foes."
- "Bad-Air Maladies."
- "A Modern Moloch."

The publishers of GOOD HEALTH also desire to announce their expectation to publish at an early date, a series of vegetarian leaflets, and also several small booklets, of which they hope the following may appear soon:—

- "Consumption: Its Cause and Cure."
- "Recent Revelations of Science in Regard to the Stomach and Its Maladies."
- "Biliousness: Its Cause and Cure."

Other works in preparation are the following:—

- "The Hygiene of the Bible and Bible Times."
- "A Health Primer" (illustrated).
- "Fashionable Deformities" (illustrated).

* *

"THE CRACK TRAIN OF THE WORLD."—A prominent New York merchant and importer of leather goods said in our hearing the other day: "I have traveled all over Europe and America, and I consider the train which leaves Chicago every day at 6.30 p. m. for St. Paul and Minneapolis, via the Chicago, Milwaukee & St. Paul Railway, The Crack Train of the World." In this statement thousands of others heartily concur.

“My dear sir, you do not know what a bicycle is unless you have ridden a Model 40 Columbia!”



We are just beginning to be able to meet the demand for these superb bicycles. Now is your chance.

POPE MANUFACTURING CO.



CHICAGO & GRAND TRUNK

R. R.

Time Table, in Effect Nov. 18, 1894.

GOING EAST. Read Down.					STATIONS.	GOING WEST. Read up.				
Mail	L't'd Ex.	4 Ex.	6 Atl. Tr'n.	2 Mixed Pass.		11 Mail Ex.	1 Day Ex.	8 R'd L't'd.	23 B. C. Pass.	5 P'dc Ex.
a m	p m	p m	a m		D. Chicago A.	6.45	1.50	9.10		7.50
11.25	5.05	10.30	6.00		Valparaiso.	5.05	11.35	7.10		5.45
1.05	6.30	12.00	10.05		South Bend.	3.10	10.15	5.44		4.10
1.45	7.12	12.45	12.40		Cassopolis.	2.15	9.40	5.13		3.28
2.33		1.33	3.42		Schoolcraft.	1.20				
2.44	7.55	1.48	4.30	a m	Vicksburg.	1.10	8.52		p m	2.37
3.30	8.30	2.40	6.20	7.00	Battle Creek.	12.15	8.15	3.55	9.35	1.50
4.33	9.25	3.25		7.47	Charlotte.	11.14	7.23	3.07	8.40	12.53
5.19	9.55	4.00		8.20	Lansing.	10.40	6.55	2.40	8.00	13.20
6.30	10.45	5.03		9.50	Durand.	9.35	6.05	1.55	6.50	11.28
7.30	11.17	5.40		10.05	Flint.	8.35	5.35	1.28	5.47	10.35
8.15	11.50	6.15		10.43	Lapeer.	7.49	5.02	1.00	5.10	10.01
8.42	a m	6.35		11.06	Imlay City.	7.28			4.48	
9.50	1.00	7.30		12.05	Pt. H'n Tunnel.	6.50	3.50	11.55	3.50	8.45
9.25	p m				Detroit.	a m		10.40	4.05	6.45
	a m	p m			Toronto.		p m			p m
	8.15	5.25			Montreal.		a m			1.00
	p m	a m			Boston.		8.30			
	8.15	7.25			Susp'n Bridge.		p m	a m		p m
	a m	p m			Buffalo.		10.15	7.05		2.25
	7.50	4.25			New York.		a m	p m		1.00
	7.00	5.40			Boston.		8.15	6.10		8.00
	p m	a m								p m
	8.53	8.03								7.00
	a m									
	10.20									

Trains No. 1, 3, 4, 6, run daily; Nos. 10, 11, 2, 23, 42, daily except Sunday. All meals will be served on through trains in Chicago and Grand Trunk dining cars.

Valparaiso Accommodation daily except Sunday. Way freights leave Nichols eastward 7:15 a. m.; from Battle Creek westward 7:05 a. m.

† Stop only on signal.
A. R. MCINTYRE, Asst. Supt., Battle Creek.
A. S. PARKER, Pass. Agent, Battle Creek.

ESTABLISHED 1844.

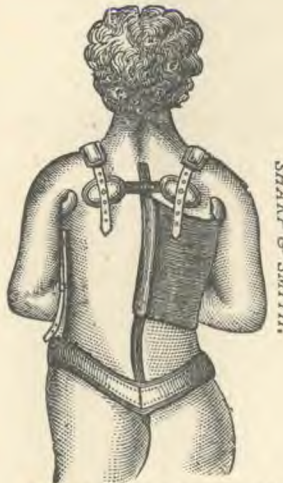
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MANUFACTURERS OF

Deformity Apparatus
Of All Descriptions.

Artificial Limbs,
Elastic Stockings,
Abdominal Supporters,
Trusses,
Shoulder Braces,
Etc., Etc.
Family Syringes.



Brace for Lateral Curvature of the Spine.

Surgical and Veterinary Instruments.

MICHIGAN CENTRAL

"The Niagara Falls Route."

Corrected June 2, 1895.

STATIONS.	*Night Express.	†Detroit Accom.	‡Mail & Express.	*N. Y. & Bos. Spl.	*Eastern Express.	*Atlantic Express.	
	Chicago	pm 9.30		am 6.50	am 10.30	pm 8.00	pm 11.30
Michigan City	11.35		8.50	pm 12.08	4.50	am 1.19	
Niles	am 12.45		10.15	1.02	5.55	2.45	
Kalamazoo	2.15	am 7.20	11.52	2.15	7.21	4.35	
Battle Creek	3.00	8.10	pm 12.50	2.50	7.58	5.32	
Jackson	4.30	10.00	2.40	4.10	9.20	6.50	
Ann Arbor	5.40	11.05	3.50	5.00	10.12	7.47	
Detroit	7.10	pm 12.20	5.30	6.00	11.15	9.20	
Buffalo				am 12.10	am 6.45	pm 5.30	
Rochester				3.00	9.55	8.40	
Syracuse				5.00	pm 12.15	10.45	
New York				pm 1.45	8.45	am 7.00	
Boston				3.00	11.35	10.50	
STATIONS.	*Night Express.	*N. Y. Bos. & Chi. Sp.	‡Mail & Express.	*N. Shore Limited.	*West'n Express.	†Kalam. Accom.	*Pacific Express.
Boston			am 10.30		pm 2.00	pm 3.00	pm 7.15
New York			pm 1.00		4.30	6.00	9.15
Syracuse			3.30		11.30	am 2.15	am 7.21
Rochester			10.37		am 1.20	4.10	9.55
Buffalo			11.45		2.20	5.30	pm 3.30
Detroit	pm 8.45	am 6.30	am 7.20	8.30	pm 1.00	pm 4.35	11.05
Ann Arbor	10.25	7.30	8.43	9.25	2.00	5.57	am 12.15
Jackson	11.40	8.35	10.43	10.30	3.02	7.35	1.25
Battle Creek	am 1.17	9.45	pm 12.15	11.43	4.18	9.11	2.55
Kalamazoo	2.10	10.37	1.00	pm 12.22	4.57	10.00	3.36
Niles	4.00	11.45	9.00	1.40	6.27		5.00
Michigan City	5.00	pm 12.50	4.25	2.45	7.22		6.00
Chicago	7.10	2.30	6.35	4.30	9.05		7.50

*Daily. †Daily except Sunday.
Kalamazoo accommodation train goes west at 8.05 a. m. daily except Sunday.
Jackson " east at 7.27 p. m.
Trains on Battle Creek Division depart at 8.10 a. m. and 4.35 p. m., and arrive at 12.40 p. m. and 6.35 p. m. daily except Sunday.
O. W. RUGGLES, General Pass. & Ticket Agent, Chicago.
GEO. J. SADLER, Ticket Agent, Battle Creek.

The Umschlag

ONE of the most useful inventions of Dr. Priessnitz, the father of modern hydropathy, was the umschlag, or heating compress, as it is sometimes called by the Germans. There is no better remedy for indigestion, inactive bowels, or sleeplessness, than this simple measure, when properly applied. The umschlag consists of a properly-adjusted bandage, moistened and worn about the body at night, to be replaced by a dry bandage during the day.

Send for Catalogue.

SANITARY AND ELECTRICAL SUPPLY CO., BATTLE CREEK, MICH.

A Natural Flesh Brush



This is the product of an Egyptian plant called the Loofah, or dish-rag gourd, which grows along the Nile. It excels every other natural or artificial product for use as a flesh brush. Conveniently arranged with tapes, as shown in the cut, it can be applied to every part of the body. It will last indefinitely.

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SANITARY AND ELECTRICAL SUPPLY CO., BATTLE CREEK, MICH.

The Volatilizer

A NEW INSTRUMENT FOR THE TREATMENT OF

CONSUMPTION, COLDS, COUGHS, NASAL CATARRH, AND ALL CHRONIC DISEASES OF THE NOSE, THROAT, AND LUNGS.

This instrument, which is the result of long experience in the use of medicaments in the treatment of various affections of the air passages, is intended for the purpose of applying medicated air to the nose, throat, lungs, eustachian tubes, and ears. It has been tested in the treatment of a large number of cases at the Battle Creek Sanitarium and elsewhere, and is believed to be the most effective instrument for the purpose which has been devised. It is comparatively inexpensive and durable, being made of nickeled copper, so it is scarcely possible for it to get out of order.

A Nebulizer and Volatilizer Combined.

A nebulizing tube accompanies the instrument, so that if for any reason the use of a Nebulizer is desired, the instrument can be used for this purpose also, so it is not only a Volatilizer but a Nebulizer as well.

A list of formulæ adapted to different conditions accompanies each instrument.

PRICES:

Spun Brass, Nickel Plated, Complete,	-	\$2.50
Without Bulb and Nebulizing Tube,	-	1.50
When sent by mail, add for postage,	-	.12
Solutions for use with Volatilizer, per oz.,	-	.20



SANITARY AND ELECTRICAL SUPPLY CO.,
BATTLE CREEK, MICHIGAN.

ANTISEPTIC

ABSORBENT

**CHARCOAL
TABLETS**

DIGESTIVE

Charcoal Tablets are not a panacea, but they have proven to be **the most valuable remedy** we possess for morbid conditions depending upon fermentation or decomposition of food in the stomach and intestines. They consist of a special form of vegetable charcoal, much superior to willow, freshly prepared, to which is added sulphur, one of our most valuable intestinal antiseptics, and diastase, a starch-digesting ferment. This will at once be recognized as a **happy combination for combatting the action of microbes in the alimentary canal.**

Charcoal Tablets render invaluable aid in the treatment of cases presenting the following symptoms of disturbed digestion: **Acidity, Eructations of Gas, Heartburn, Biliousness, Sick Headache, Nervous Headache, Bad Taste in the Mouth, Coated Tongue, and Constipation.** Persons suffering from dilatation of the stomach need to make constant use of an intestinal antiseptic of some sort. The antiseptics entering into the composition of Charcoal Tablets are the **only ones** with which we are acquainted that may be continually used without injury.

MODERN MEDICINE COMPANY,
BATTLE CREEK, MICHIGAN.

J. FEHR'S
"COMPOUND TALCUM"
"BABY POWDER,"

The "Hygienic Dermal Powder" for Infants and Adults.

Originally investigated and its therapeutic properties discovered in the year 1868 by Dr. Fehr and introduced to the Medical and the Pharmaceutical Professions in the year 1873.

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 With positive Hygienic, Prophylactic, and Therapeutic properties.

GOOD IN ALL AFFECTIONS OF THE SKIN.

Sold by the Drug Trade generally. Per Box, plain, 25c.; perfumed, 50c.;
 Per Dozen, plain, \$1.75; perfumed, \$3.50.

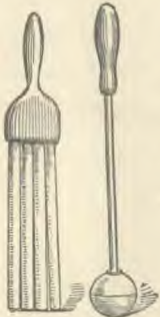
THE MANUFACTURER:

JULIUS FEHR, M. D., Ancient Pharmacist,
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SIMPLE, cheap, and efficient instruments for securing some of the effects of massage. By their habitual use one can obtain most beneficial results without the aid of an expert.

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SANITARY AND ELECTRICAL SUPPLY CO.,
 Battle Creek, Michigan.

Cannon-Ball Massage



CANNON BALLS are effective in combating certain forms of disease, as well as in destroying life. An eminent German physician discovered a few years ago that by means of a cannon ball covered with leather a patient suffering from inactive bowels may often effect a cure by the regular use of the cannon ball, rolling it along the course of the colon, beginning low down at the right side. This remedy has been in successful use for many years at the Battle Creek Sanitarium.

Send for Catalogue. **SANITARY AND ELECTRICAL SUPPLY CO.,** Battle Creek, Mich.



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A THOROUGH SCHOOL for young men and young women.
 COMPLETE COURSES OF STUDY, Scientific and Classical,
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Special Announcement.



GOOD HEALTH LIBRARY.



THE publishers of "GOOD HEALTH" propose to begin at an early date the publication of a series of small tracts and booklets under the general title, "THE GOOD HEALTH LIBRARY." The following is a partial list of the numbers in preparation:—

Household Germs.

Combating Germs in the Sick-Room.

A Toothless Race.

The White Plague.

Death in the Pot.

Our Hidden Foes.

The Smoke God.

Bad-Air Maladies.

The Troglodytes.

A Modern Moloch.



The publishers of "GOOD HEALTH" also desire to announce their expectation to publish at an early date, a series of vegetarian leaflets, and also several small booklets, of which they hope the following may appear soon:—

Consumption, Its Cause and Cure.

Recent Revelations of Science about the Stomach and Its Maladies.

Biliousness, Its Cause and Cure.

Other works in preparation are the following:—

The Hygiene of the Bible and Bible Times.

A Health Primer (illustrated):

Fashionable Deformities (illustrated).



GOOD HEALTH PUBLISHING CO., Battle Creek, Michigan.



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A HEALTHFUL FOOD

AN INVALID FOOD prepared by a combination of grains so treated as to retain in the preparation the **Highest Degree of Nutrient Qualities**, while eliminating every element of an irritating character.

THOROUGHLY COOKED AND PARTIALLY DIGESTED,

This food preparation is admirably adapted to the use of all persons with weak digestion, defective assimilation, general or nervous debility, brain workers, feeble children, and invalids generally, as well as travelers and excursionists, who often need to carry the **Largest Amount of Nutriment in the Smallest Bulk**, which is afforded by Granola in a pre-eminent degree.

ONE POUND MORE THAN EQUALS THREE POUNDS OF BEST BEEF

In nutrient value, as determined by chemical analysis, besides affording a better quality of nutriment. Thoroughly cooked, and ready for use in one minute.

Send for illustrated and descriptive circular of Granola and other healthful foods to the

SANITARIUM HEALTH FOOD COMPANY, Battle Creek, Mich.

GRANOSE,

A NEW FOOD-CURE for CONSTIPATION AND INDIGESTION.

GRANOSE is a preparation from wheat, in which all the elements of the grain are preserved, and by combined processes of digestion, cooking, roasting, and steaming, brought into a state which renders assimilation possible with the smallest amount of labor on the part of the digestive or-

gans. **It is accepted by many stomachs which reject food in all other forms.** **GRANOSE** has the advantage of being not only in the highest degree digestible, wholesome, and curative of many disorders of nutrition, but at the same time it is

THE MOST PALATABLE OF FOODS.

The delicate, nutty flavor of **GRANOSE**, its delicious crispness, its delicate, appetizing odor, and above all the remarkable manner in which it agrees with the most refractory

and fastidious stomachs, justify the assertion that it easily surpasses, for general purposes, all other food preparations which have been placed upon the market.

A SOVEREIGN REMEDY FOR CONSTIPATION.

Within two or three days after beginning the use of this food, the great majority of persons suffering from chronic constipation find themselves **ALMOST ENTIRELY RELIEVED**, and the continued use of the food insures regular movements of the bowels in nearly all cases except those in which intestinal inactivity is due to mechanical causes, for the relief of which surgical measures are, of course, required.

Notwithstanding the above representations with reference to the excellent qualities of this food, the manufacturers assert, in the most positive manner, that **Granose is pure wheat**, containing no other ingredient whatever except a minute proportion of chloride of sodium. This food is already in use in a number of the principal sanitariums, in which it is daily verifying the above statements.

For sample, address,

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Battle Creek, Michigan.

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Extensive Sanita-
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BATHS OF EVERY DESCRIPTION.
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Not a "Pleasure Resort," but an unrivaled place for chronic invalids who need special conditions and treatment not readily obtainable at home.

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