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INTERNATIONAL HEALTH STUDIES.

BY FELIX L. OSWALD, M. D.,

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

56.—Indian Territory.

IN a summer camp of the southern Alleghanies, I made the acquaintance of an old mountaineer, who gave me a graphic account of the scenes at the village of Cleveland, Tennessee, where the U. S. Government had collected a number of Cherokee Indians, previous to their deportation to the far West. Some of the old squaws flung themselves on the ground to kiss their native soil a last farewell, while their male relatives strutted about, drinking and blaspheming in a manner that obliged one of the government commissioners to warn them against too gross violations of the Caucasian spectators' notions of decorum.

"Oh, hang your decorum," said one of the young bucks, "we know we are going to pot" (he used a more lurid synonym), "and you might as well let us have a little fun on the way."

The poor fellows knew that they were not going to heaven, but few of them realized the whole depth of their doom till the scene of their exile was shifted from Cherokee County, Texas, to that part of the Louisiana purchase now known as the "Indian Territory." From a scenic point of view, Northern Texas and Western Arkansas are not altogether the loveliest parts of the United States, and the aspect of nature cannot be said to improve as we proceed farther northwest. The scantness of the herbage gives evidence of frequent drought; there are rivers, but they derive their main supply of moisture from their head-water region in the far-off Rockies; the trees of the "cross-timber" (a belt of post-oak forests) look thinner and more rickety than in Texas, and the plurality of the mountain ranges are well described by their old French name, the "Sans Bois Range"—the treeless hills.

The great bison herd, though a thing of beauty at the beginning of this century, did not prove a joy forever. The exiles were told that they could get buffalo robes enough to protect themselves against occasional frosts, and that they would not have to work to glut their carnivorous appetite to the utmost; but the commissioners forgot to mention that Caucasian sportsmen and pot-hunters would compete for buffalo stakes, and the great herd had dwindled to a few scattered troops before the guardians of the nation's wards seemed to remember an Arab proverb to the effect that "the herder will outlive the hunter, but the gardener will survive them both."

The descendants of the sport-loving aborigines were then lectured on the advantages of agriculture. Experimental farms were established near Turcell and Atoka, to prove the possibility of raising corn and potatoes; farming implements, and even seed corn, were given free to those who would use them; and when the exiles still grumbled, their effrontery was pronounced unparalleled, except by their ingratitude.

"Some creatures really do n't know when they are well off," comments one traveler. "How hard a living a wood hawk is making in winter; but catch a lot of those birds, clip their wings, put them in a poultry yard, and tell them they can have worms for

the trouble of scratching, and bread crumbs twice a week at the owner's expense, and after all, they might be absurd enough to look unhappy."

The Indian exiles must plead guilty of a similar absurdity. The logic of hunger has driven them to agriculture, and from a physiological point of view the substitution of corn cakes for venison might seem a step in the direction of a much-needed reform; but the correct forecast of the practical result, evidently requires other factors of computation. In

the first place, it would be a mistake to suppose that the aborigines of the southern Alleghanies were wholly carnivorous. They were hunters and fishers, and had common sense enough never to destroy game in wanton sport, or to abandon an exhausted hunting ground for a number of years till a day's hunt could again be made to supply a wigwam with a week's meat. But they also gathered and dried bushels of berries and chestnuts; along the level bottoms of their mountain streams they cultivated at least three different food plants: maize, pumpkins, and beans; and if they could return to view their hunting grounds in their present condition, they would emphatically deny that the agency of the white man has improved a country where hard times were once known only as transient consequence of heavy snow storms.

And the contrast between their ancestral and present mode of life is too extreme to be compensated by ill-appreciated moral benefits. Fifty years sufficed to turn the staid Puritan into a hunter and wood ranger, but a change in the opposite direction is less easy to endure, and there is no doubt that thousands of the descendants of the Alleghany deerhunters have perished in exile of what Rousseau calls the "torment of unsatisfied instincts." Transferred from the natural game park of their native mountain forests to a prairie where even sage-brush hens are getting too savage to repay the trouble of hunting, they pined away with ennui, or sought diversion in rowdyism, or in the worse expedient of alcohol, swallowed as a moral anodyne, *i. e.*, for the deliberate purpose of stupefaction. "Prohibition is a dead-letter law in a thinly settled country like this," says Commissioner Waite, "and the trouble is that it seems impossible for an Indian to drink without getting drunk, or to get drunk without becoming a confirmed drunkard."

The fact is that our red fellow-men rarely use alcohol for what a guest of the Munich Brau Haus would call "convivial purposes." They do not care much for beer or wine, and value fire-water as the most available means for lighting up the gloom of despondency or drowning misery by the extinction of consciousness. The latter purpose too often is attained in the Buddhistic sense of a plunge into the Lethe of Nirvana. That the same amount of brandy will cure an athletic Choctaw much quicker than a weakly Frenchman, might seem a paradox, but merely illustrates the effect of a poison habit upon an unprepared race. The experiment of Mithridates proved that practice can establish what physiologists call a "state of tolerance" to the effect of almost any poison, and that callousness of the system can become hereditary, and tends at least to postpone the penalties of the toper's sins against nature. A correspondent of the *Worth China Herald* remarks that

no white man is in danger of wasting his fortune on opium after the manner of the Mongol tope-fiends, for the simple reason that he cannot get his system to endure the same quantities of the deadly narcotic, and thus will either have to commit himself to comparatively moderate doses or smoke himself to death, and free his friends from the consequences of his vice. A still more striking analogy is recorded in the travels of Captain Cook, whose sailors afflicted the natives of one of the southern islands with a virulent catarrh, by merely conversing with their fruit venders for a couple of minutes. The strangest fact about that result, was the circumstance that the sailors themselves did not complain of any respiratory trouble, because their system had, after a fashion, long adapted itself to the poison of an ill-ventilated cockpit, though their breath was so saturated with catarrh microbes that it set the non-habitués of a Pacific island sneezing and coughing for weeks together.

That the five "nations" of the Territory have not long ago departed for the Happy Hunting Grounds of their ancestral creed, but have survived droughts and diseases and even attained to a quasi civilization, is due mainly to a large admixture of Caucasian blood. Since 1832 the involuntary settlers of the unmixed race have considerably decreased. Counting in the half-breeds and adopted whites, they have nearly held their own, and demonstrated their capacity for progress by founding academies, hospitals, and two orphan asylums.

Schopenhauer's theory that the intellect of a child is generally inherited from the mother's, and the character from the father's side, explains the fact that the progress of the Anglo-Cherokees have not been much faster, for in nine out of ten cases the half-breeds were the offspring of white fathers (trappers, herders, and soldiers) and Indian mothers. The few born under the opposite auspices, or at least as children of male half-breeds and Caucasian mothers, really include a good many gifted men, combining Anglo-American ingenuity and enterprise with the red man's fortitude and strength of will. Physically, too, the result of such unions often turns out happy, and many "quarter-breeds" have completely gotten rid of that peculiar look of deep-set melancholy that distinguishes the American aborigines after the middle of life, and may date from a time when their forefathers experienced hardships that made their homes in Northeastern Asia untenable. Their children are brimful of animal spirits, and, at least up to the middle of their teens, manifest a love of knowledge that would help them to carry off many prizes of international colleges.

But the alliance with Caucasian adventurers has failed to cure the roving propensity of the red hunters. Full-breeds and half-breeds are farmers by necessity, but nomads by instinct, and on very slight temptation are apt to renounce the advantages of a permanent home and go adventuring, with or without the hope of bettering their fortune in the business sense of the word. They indulge in family feuds or espouse those of their neighbors, and during our last civil war, when the constitution of the Territory would have entitled them to stand aloof, thousands joined the army from a sheer love of fighting, and without any distinct political preference, the number of the Blues and the Grays being about equal.

Colonel Ingersoll tells a story of an Indian village where a King of Hearts, found in the pocket of a dead gambler, was framed with beads and came to be a very popular god; but it would be unjust to infer that the Indians have adopted the white man's creed and laws, merely from an ape-like deference to the customs of a superior race. They have in more than one instance demonstrated their ability to discriminate and even to improve upon established patterns. The criminal court of Talequah permits condemned criminals to choose their own manner of death,—a liberality exceeded only in the time of Marcus Aurelius, when individuals hopelessly afflicted by disease or misfortune could obtain formal permission to commit suicide. The Choctaw custom of setting aside all formalities and "adopting" a popular white man by acclamation, is very pretty; and still prettier is the Osage funeral rite at the bier of a papoose, whose relatives, with a strange freedom of practical philosophy, are made to envy the fate of the departed youngster. "I planted a shade tree," says one of the funeral orators, "and if I had died young, I would not have seen it cut down." "I had a pet horse when I was a boy," says another, "and I wish I had never lived long enough to see it die." "Let us envy that child," then chants the chorus; "frosts will get fierce but cannot hurt him now; famine will come, but he need not care,"—almost exactly in the spirit of Heine's elegy on a lost playmate of his youth:—

> "Bist Klug gwesen, bist früh entronnen,
> Hast früh vor den Stürmen ein Ocdach gewonen."
> ("What wisdom it proves in a kid of your age,
> That timely escape from the stormwind's rage"),—

certainly a rather enviable "final emancipation" in those parts of the Territory where the plague of brandy smugglers has been aggravated by an epidemic of patent medicine peddlers.

[To be continued.]

THE LITERATURE OF VEGETARIANISM.

BY WILLIAM E. A. AXON.

A paper read at the International Vegetarian Congress, June, 1893.

VEGETARIANISM is often regarded as an entirely modern question, but as a matter of fact it is one of great antiquity, and its literature, in Europe alone, stretches over some 2000 years. The first formal treatise on vegetarianism is that of Plutarch, whose two discourses against flesh eating have several times been translated into English and other modern tongues. A reprint of Holland's fine Elizabethan version is now in the press. Plutarch is a worthy pioneer, and there is far more of the "modern spirit" in his writing than might be supposed by those who are unfamiliar with his temper and teaching.

The bibliography of vegetarianism has not been neglected. A lengthy list of books and tracts is given in Robert Springer's "Wegweiser in der Vegetarianischen Literatur" (zweite vermehrte Auflage, Nordhausen, 1880), of which the first edition appeared in 1878.

Still more important is Mr. Howard Williams's "Ethics of Diet," which offers a *catena* of authorities against flesh eating. Mr. Williams gives critical and biographical sketches of Hesiod, Pythagoras, Hierocles, Musonius, Plato, Ovid, Seneca, Plutarch, Tertullian, Clement of Alexandria, Porphyry, Chrysostom, Cornaro, Thomas More, Montaigne, Lessius, Gassendi, Ray, Evelyn, Cowley, Mandeville, Gay, Tryon, Hecquet, Cheyne, Pope, Thomson, David Hartley, Chesterfield, Voltaire, Haller, Cocchi, Rousseau, Linné, Buffon, Jenyns, Hawkesworth, Paley, St. Pierre, Oswald, Pressavin, Hufeland, Ritson, Nicholson, Abernethy, Lambe, Newton, Gleizès, Shelley, Phillips, Michelet, Cowherd, Metcalfe, Schiller, Graham, Lamartine, Struve, Daumer, Schopenhauer, Bentham, Sinclair, Byron, and the Buddhist Canon.

Similar in form and treatment is Springer's "Enkarpa" (Hannover, 1884). In this the dietetic tendencies of the early Aryans, of the Egyptians, and of the Israelites, so far as they relate to vegetarianism, are discussed. The influence in that direction of Brahmanism and of Buddhism, and the spread of the latter philosophy and religion in further Asia, China, and Japan, is set forth. This is followed by a sketch of the development of Greek civilization. The ethic and didactic poetry of the Hellenes, as exemplified by Hesiod and Homer, are passed in review. The beautiful drama of "Sakontala," that masterly picture by Kalidasa of the older culture of Hindoostan, is then described. Empedocles, Zeleucas, Charondas, Socrates, Plato, and the Epicureans and Stoics are named. With the Romans we pass from Numa to Virgil, Ovid, and Horace. A chapter is devoted to Christ and the Apostles, and then come notices of Seneca, Musonius, Juvenal, Plutarch, and Philo Judæus. The neo-Pythagorean teaching and the story of Apollonius, of Tyana, are next dealt with. Under the head of mediæval philosophy, Springer comments on the teaching of the Gnostics and the Fathers, citing Clement of Alexandria, Tertullian, Origen, Lactantius, St. Basil, Gregory Nazianzenus, Chrysostom, St. Jerome, and St. Augustine. The ascetic abstinence of Christian monarchism is described, and this is followed by an account of the neo-Platonists — Plotinus, Porphyry, and Jamblichus. With scholasticism we come to the end of the Middle Ages. The Pythagorean philosophy finds a new birth in the modern world, and its literature contains the testimony and protest of Montaigne, Gassendi, Milton, Evelyn, Ray, La Fontaine, Bossuet, Tryon, Cheyne, Mandeville, Gay, Pope, Thomson, David Hartly, Voltaire, Jean Meslier, Soame Jenyns, Rousseau, Goldsmith, Wieland, Bernardin de St. Pierre, Herder, Paley, Schiller, Jean Paul, Jean Antoine Gleizès, Lamartine, Michelet, George Sand, Shelley, and Byron. And as the regenerators of Pythagoreanism, he takes the names of Gustav von Struve, J. W. Zimmermann, Eduard Baltzer, and Richard Wagner.

The contents of Williams's "Ethics of diet" and of Springer's "Enkarpa" show the continuity of the vegetarian aspiration through many ages. It is necessary to remember that these books are not exhaustive. Large sections of oriental literature are permeated by Vegetarian doctrines and sympathies. From the "Edicts" of Asoka to the "Ox Tract" of the Chinese, all Buddhist teaching is opposed to the slaughter of animals, whether for sacrifice or for food. On the other hand, it must be acknowledged that some of the modern authors cited, "builded better than they knew," and while advocating vegetarianism or preparing the way for its advent, were not themselves Pythagorean in diet.

The present century has seen an enormous increase

in the quantity and diffusion of vegetarian literature. George Nicholson, who was a printer at Manchester and other places, published, between 1797 and 1803, several small books of elegant typography on the "Conduct of Man to Animals," "The Primeval Diet of Man," "On Food," and "On Clothing." These are mainly selections, but they anticipate very largely modern humanitarian sentiment. The "Essay on Abstinence from Animal Food," by Joseph Ritson, the antiquary, appeared in 1802. Dr. William Lambe's "Reports on the Effects of a Peculiar Regimen" (London, 1809) is written from a medical standpoint. The "Return to Nature," by J. F. Newton, appeared in 1811, and in the following year was published Percy Bysshe Shelly's "Vindication of Natural Diet," which is also printed as one of the notes to "Queen Mab." There are many vegetarian recipes in Nicholson's "On Food," but the first definite cookery book from which the ingredients of animal food were excluded, appeared in 1812, and was written by Mrs. Martha Brotherton. That lady's husband, Mr. Joseph Brotherton, wrote an introduction to this "Vegetable Cookery." Later editions were called "Vegetarian Cookery by a Lady," and have a different introduction by Mr. James Simpson. This has been the forerunner of a long array of vegetarian cookeries — English, German, American. One has been issued for Indian use, partly in English and partly in Gujarati.

Mr. Brotherton's introductory essay was also published as a tract, at Salford, in 1821, and was republished in Philadelphia about the same date. In 1839 there appeared in printed form the "Lectures on the Science of Human Life," by Sylvester Graham, a remarkable work, which long remained the text-book of the vegetarian and hygienic reformer. Much of it had been delivered orally ten and more years earlier. It remains fundamentally sound, though it may require sometimes to be translated into the terminology of later science. The next year saw the publication in Paris of "Thalysie, ou la Nouvelle Existence," by J. A. Gleïzès, a book of great ability, but much more ideal in its scope and treatment than that of Graham. The turn of England came next, and "Fruits and Farinacea, the Proper Food of Man," by John Smith, appeared at London in 1845. This is a comprehensive work in which the whole range of the subject — ethical, economical, physiological, and practical — is covered. An American edition appeared, with notes by R. T. Trall, M. D.

Another remarkable contribution to the literature of vegetarianism was made my Emil Weilshaeuser, whose "Familienbibliothek," "Gesundheit, Wohlstand, und Gluck," extends to twelve volumes, and contains translations of the chief treatises on vegetarianism and hygiene, including those of Dr. W. A. Alcott, Cocchi, Dr. O. S. Fowler, Dr. Lydia Fowler, R. G. Gammage, Sylvester Graham, William Horsell, F. R. Lees, Dr. T. L. Nichols, A. Nicholson, Rev. James Scholefield, John Smith, Laroy Sunderland, and F. Towgood. Here also should be named the many important contributions to German vegetarian literature of Eduard Baltzer, Theodor Hahn, and Richard Nägel. The first book on the subject in which the Darwinian influence is strongly marked, is the "Obst und Brod" of Gustav Schlickheysen. Of this an English translation, "Fruit and Bread," by M. L. Holbrook, appeared at New York in 1877. Prof. Francis William Newman's most important contributions are gathered into a small volume of "Essays on Diet" (London, 1883). Mrs. Anna Kingsford entitled her dissertation for the M. D. degree at Paris, "De l'Alimentation Végétale chez l'Homme." Of this two French editions appeared in 1880, and in its English dress, "The Perfect Way in Diet," it has had a large circulation. There is a German translation. "How to Live on a Sixpence a Day," by T. L. Nichols, M. D. (London, 1877), has been widely popular, and forms the basis of "La Vie a bon Marché," by the Baron Tanneguy de Wogan (Paris, 1888). Prof. J. E. B. Mayor has written "Modicus cibi Medicus sibi" (London, 1880), a learned and wise little English book with a Latin title. Mr. Henry S. Salt has written "A Plea for Vegetarianism" (Manchester, 1886), in which the humanitarian position is advocated and defended with great literary skill. In 1891 appeared at Paris "Le Vegetarisme et le Régime Vegetarien Rationnel," by Dr. Bonnejoy (du Vexin), with an introduction by Dr. Dujardin-Beaumetz." "How Nature Cures," Comprising a new system of hygiene, also the "Natural Food of Man" (London, 1892), is an argument against the use of starch foods. The conclusions of the author, Emmet Densmore, M. D., are combated in "Essays on Vegetarianism," by Arnold Frank Hills (London, 1893), a book in which the author's theological and social views are also explained.

There is an extensive periodical literature devoted to vegetarianism. The *Vegetarian Messenger*, which began in 1850, is published monthly; the *Vegetarian* has appeared weekly since 1888; the *Vegetarische Rundschau* is the union of German vegetarian papers, the first of which was founded by Baltzer in 1867. *Food, Home, and Garden* is the organ of the

American Vegetarians, and the *Harbinger of Health*, published at Lahore in English and Urdu, of the Punjab vegetarians. There are a number of American papers — GOOD HEALTH, an advocate of vegetarianism, the *Pacific Health Journal*, the *Journal of Hygiene* — which are more or less vegetarian in character. The *Hygienic Review*, while thoroughly vegetarian in tone, does not confine itself to that topic.

There are vegetarian books in Greek and Latin, and modern books in German, French, English, Italian, Russian, Swedish, and Spanish.

Perhaps the most characteristic feature of modern vegetarian literature remains to be mentioned. With the idea of making their aims known to the world, which has little leisure and sometimes little taste for books, the vegetarians have written and published a long array of pamphlets — small monographs in which the different phases of the subject are briefly dealt with. Some of these are reports of lectures, and of papers and addresses given at the British Association, the Sanitary Congress, and other scientific gatherings. Others have been specially prepared by their authors for the purposes of popular propaganda. The greater number of these are issued by the Vegetarian Society, which has its headquarters in Manchester, but the Vegetarian Federal Union, the American Vegetarian Society, the Deutsche Vegetarische Gesellschaft, and the Punjab Vegetarian Society have also made important contributions to this propagandist literature. From each of these societies inquirers can obtain the whole or any portion they may desire of the current literature of vegetarianism.

The aim of the champions is to show that, ethically considered, the disuse of animal foods would greatly reduce the amount of death and cruelty in the world, and would promote international peace and purer morals; that, socially, it would simplify life; bridge over the dangerous gulf between rich and poor; and by reducing the expenditure necessary for mere existence, would liberate a larger proportion of income for higher things, for education, art, music, and all the agencies that help to brighten and purify life; that by its sanative character this dietary would reduce disease and increase that stock of health which forms so largely the basis of national wealth and of individual enjoyment and usefulness. The vegetarians claim to be working for the future, and building up a "City of God," of mutual forbearance and mutual help, of a frank acknowledgement of rights not restricted even to humanity, but including in links of love all the bright and innocent creatures that dwell upon the earth. It begins with the pots and pans of the kitchen, and stretches away to that kingdom of heaven which all good men, whatever the name they may give to their aspiration, desire to bring about.

IMPORTANT PRACTICAL TESTIMONY.

BY HELEN L. MANNING.

THE human stomach can become accustomed to the most preposterous articles, and it is hard to say whether civilized people or savages inflict the worst abuses upon this inoffensive and useful organ. The clay eaters of our Southern States may be matched with the clay eaters among the Red Karens of Burma, or the loam-eating Otomacs of South America. The enlightened gourmand who delights in "high" game — that which, in other words, is made tender by putrescence — and in old cheese, which is the polite name for rotten milk, swarming with bacteria, may be in turn pitted against the Burman tribes whose greatest delicacy is styled *gnappee*, — in plain terms, rotten fish. Fish are caught and pickled in quantities and then buried in the ground from one to four years, the length of time being suited to individual tastes and different markets. In any case, it is needless to add that this epicurean dainty is a loathsome, putrescent mass, alive with germs of decay.

Dietetic reformers are often confronted with the statement that man was intended to eat what he liked best, that none of the things mentioned are injurious to systems accustomed to their use. Pepper, horse-radish, and the like, it is added, serve to stimulate digestion rather than to hinder it, and so on. It is not always easy to gainsay these specious fallacies by arguments or proofs which will be accepted, wherefore the following testimony from H. Morrow, of Tavoy, Burma, recently published in the *News*, Rangoon, is deemed specially valuable. Be it remembered that this is a demonstration of facts ranging over the period of a decade, in the actual experience of a missionary teacher, and that its publication at this time is not in the interests of any so-called "fanatical" food reformer, but for the benefit

of his co-laborers and their pupils in that country. He says : —

"Reports of illness in several schools induce me to state the means which we have used to check, if not conquer, this great enemy. I shall try to observe becoming modesty, and beg to be allowed more than my share of space, as the subject is one of the greatest importance.

"When we came into the country, we fell into line with other schools, and yearly laid in our supply of rotten fish for our pupils, allowing them to cook their rice to their liking. We had more or less sickness much of the time, and one or more deaths every year. I may say here that we cannot send sick pupils back to their homes, as some others do, on account of the distance and lack of communication.

"About ten years ago, we began to make changes. We first cut off tobacco and the other filth used with it, and this putrid fish. There was directly a very noticeable decrease of sickness, particularly skin diseases, boils, and heartburn. From that time to the present, with an average attendance of about one hundred pupils in each year, only one pupil has died. We also took another step and abolished red peppers, eating between meals, fast eating, and had the pupils' rice cooked soft, even softer than we use it. As a result, bowel troubles and all other sickness ceased to exist, and our hospital is now for sale or to let. We are quite confident that dysentery is traceable to red peppers, aggravated, of course, by the use of filthy, putrid fish. The former are the source of sin as well as of disease ; the latter needs only to be mentioned to be abhorred. Hear the conclusion of the whole matter : Let us have clean food, properly cooked and properly eaten, and sickness will no longer trouble us."

Is it not very significant that a dietetic reform which cut off decayed flesh first and afterward prohibited the use of condiments, eating too fast and at too frequent intervals, should, in so short a time, result in such a marked improvement of the general health that the former much-used hospital should be "for sale or to let ;" and that the death rate should be reduced to the merest fraction of its former figure? It must further be considered that this change has been wrought in a tropical climate, where dysentery and other bowel troubles largely prevail, and are frequently fatal among both natives and foreigners, when the ordinary foods are eaten in the ordinary manner.

MEAT AND MURDER.

William H. Galvani, president of the Vegetarian Association of Oregon, discussing the question of the slaughter and consumption of animals being a cause of the increasing prevalence of murder, makes the following statements in the *Oregonian* : —

"Murder, like any other crime, is an effect of certain existing causes, and to do away with an effect we must first seek for the causes producing it, and remove them.

"But what are these causes? Let us see. Did you ever think that the United States is the greatest meat-consuming country in the world? I cannot at this moment give a tabulated statement of the quantity of animal food consumed in each of the countries classed as civilized, and the number of murders committed in the respective countries. I think, however, it is perfectly safe to assume that an investigation of this matter will prove conclusively that the number of murders in any given country will be in proportion to the quantity of animal food consumed by its population.

"In a brief newspaper article, it is impossible to enter into all details that would help demonstrate the above proposition. However, one need but consider the effects of a flesh-and-blood diet upon those engaged in supplying it, and those who consume it, and the justice of the above proposition will be fully demonstrated.

"I do not think there lives a human being with a soul so dead, as not to realize that the awful work of slaughtering animals brutalizes and degenerates all that is human or divine in man. The fact that such persons are not allowed in nearly all civilized countries to act as jurors in cases where the life of the criminal is at stake, tells the story. It is also a noted fact that, wherever it had been possible to ascertain, the most monstrous murderers were proven to be descendants of persons engaged in slaughtering animals. Kemmler's father was engaged in such work, and his mother helped in the business. As the demand for meat as an article of diet increases, the number of those engaged in supplying it necessarily increases. It should not be forgotten that each of these individuals, owing to their mode of living, contributes probably more than an average share toward multiplying and replenishing the earth, and thus brings into existence a large number of children in whose very system is a craving

for blood. The law of heredity and transmission does that. Can any one deny these propositions? So much for those engaged in supplying the civilized race with animal food. Let us see now how it affects those who only consume it.

"The animals are in the system of nature next to man. From them we learn a good many of our most valuable lessons. The dog, probably the most sensible of our domestic animals, and in many instances more sensible than most of his critics and all of his abusers, furnishes some thoughts for reflection in this matter. When we wish to make a dog ferocious, we feed him upon meat, but when we desire to made him kind and gentle, we feed him upon bread and milk and similar food. Why should this not apply to the human being? But let us for one moment turn to the mothers of the human race. Think of a woman who is about to become a mother, and who at that period is extremely sensitive, making her daily rounds to the butcher shop, the fish and poultry market, and there, among the mangled and decaying corpses of animals, selecting parts of slaughtered creatures, handling this revolting stuff, preparing it so as to make it possible to eat it, and sustaining her own life upon such refined food as well as the life of the coming offspring! What effect, pray, has this upon each one who is called into existence upon this planet and among the representatives of this boasted civilization? Is it a wonder that murder is on the increase? — Not at all.

"When those engaged in the ungodly work of slaughtering innocent animals, nature's best and most obedient children, will turn to raising fruits and flowers; when civilized man will give up devouring animals for food, or destroying them for sport; when the civilized race will adopt the diet kind nature has so abundantly provided for it,— grains, vegetables, and fruits,— 'man's inhumanity to man' will no longer 'make countless thousands mourn,' nor could his own nature ever become so brutalized and degenerated as to lead him to the monstrous crime of murder."

HYGIENIC FOOTGEAR OF THE GERMAN ARMY.

To illustrate the care taken of the soldier in the German army, let me mention the subject of shoes. There is, in Berlin, in a very out-of-the-way place, a government museum, devoted entirely to hygiene. The famous Professor Koch is, or was, at the head of this excellent institution, when I last visited it. Among the exhibits, the most interesting to me was a lot of boots and shoes, with explanatory legends in regard to the relative merit of each for marching purposes. The ones that appear to have given the greatest satisfaction were very broad in the toes; in fact so broad that the foot appeared to have no support except upon the sole, thus allowing the greatest possible room for the expansion of the bones. In lieu of stockings, the article recommended was a woolen rag cut square and folded over the foot according to the taste of the wearer. The great advantage of these square woolen rags over the stocking is that while the stocking is apt to wear a hole either at the heel or at the toe, this woolen rag is shifted every time the boot is taken off, and thus insures an equal distribution of friction over all its parts. When the woolen rag is taken off, it is very easily washed, and dries much more readily than the stocking; it is also more conveniently folded in the knapsack, and perhaps even on the score of economy has something in its favor. Between this excellent woolen rag and the care taken in regard to the selection of boots and shoes, so much has been achieved for the footgear of the German soldier that it has now become axiomatic that any difficulty with a soldier's feet must be presumed to spring from the soldier's own carelessness.

There are two things which the German officer does not and cannot condone — one is non-efficiency of the soldier's rifle, the other a chafed foot. If either of these two takes place on the march or during the manœuvers, the soldier is immediately punished with arrest, and is not allowed to offer any excuse. During the different manœuvers of German army corps that I have attended, I cannot recall a handful of footsore men in the course of a day's work, and yet at all these field operations forced marches are a feature, in order to test the endurance of officers and men. The secret of this uniform excellence as regards marching powers, lies in the training which the men receive. When they enter their company as recruits in October, the first thing that is impressed upon their minds is the importance of the shoe and the musket. No pains are spared in giving the men at the start comfortable footgear, and they are expected to look after this with as much interest as if it were a chronometer.— *Poultney Bigelow, in Harper's Monthly.*

MEDIÆVAL MEDICINE.

DURING the mediæval ages, ecclesiastics especially prided themselves on their treatment of lunacy by exorcism. A madman, they thought, was possessed — that is to say controlled — by one or more devils; and they were very indignant with any one who doubted this. Disbelief in the devil, disbelief in an infinite number of little devils, they called — suggestively enough — atheism. The power of casting out devils was regarded as the chief sign of the divine origin of Christianity, and as the surest evidence of apostolical succession. The services of exorcism were of a very elaborate kind. The officiating clergy began by hurling every kind of objectionable epithet at the devil's head. He was called a "lean sow," a "mangy beast," a "sooty spirit," and a great many other things which are better not mentioned. If he still refused to budge, the exorcist pelted him with mysterious and alarming theological words like "*athanatos*," "*homoousion*," "*tetragrammaton*," "*schemhamphora*." Then they burnt under his nose asafetida, and all sorts of bad-smelling drugs. Afterward they appealed to him by the Apocalypse, by the seven golden candlesticks, by everything that might be supposed to move a devil's heart. If even yet he was deaf to their entreaties, they proceeded to curse him. "May the Holy One," they cried, "strike thee, trample on thee, grind thee, break thy head, pound thy skull with a hammer," and so on. After this it was only exceptionally brave devils that continued to hold their ground. But if even the cursing failed, recourse was had to scourging and torture. There still remain in various parts of Europe the fool towers, as they were called, where this final discipline was inflicted on the insane. One hardly knows who were the madder of the two — the exorcists or the exorcised. But it is quite certain that the exorcised would have been much less mad, would have stood an infinitely better chance of becoming sane, if the clergy had let them alone.

There was another class of diseases for which the Church was greatly responsible; viz., the diseases which result from dirt. Ecclesiastics invariably insisted on the peculiar sanctity of filth. No one ever heard of a clean saint — such a thing would be a contradiction in terms. Athanasius eulogized St. Anthony because he never washed his feet. A certain lady, named Sylvia, was celebrated for never washing any part of her body excepting her fingers. And even she was outdone in this holy rivalry by St. Abraham, who never washed at all. The majority of the saints, it is true, fell somewhat short of this exalted standard, but every one of them had the same ideal. Every one of them confused filth with piety. The more the clergy preached, therefore, the dirtier the people became. Of course, pestilence of the most appalling kind was the inevitable result. And when the pestilence had come, the clergy increased its ravages a hundred-fold by preying on the fears of the people. They told the panic-stricken laity that God was in a rage. They said that he had sent the great plague of London as a punishment for Sabbath-breaking, and that the "black death" had come because he was displeased by a new fashioned boot with pointed toes. These clerical explanations, which now make us smile, drove our poor forefathers frantic. No wonder, under all these circumstances, that the plague decimated London, and that the black death carried off, in six years, twenty-five millions of people — a quarter of the population of Europe.

Some of the theological delusions were once taught in good faith. The clergy at first believed them. The indictment against ecclesiastics is not that they were ignorant, nor that they were mistaken; the indictment is that they refused to learn, that they persisted in clinging to what they knew to be false. The old superstitions were a source of unlimited wealth, and therefore they were kept alive by self-interest long after they would otherwise have died out. A great theologian, Charlevoix, used to say very naïvely that "pestilences were the harvests of the ministers of God." The ministers of God always preached atonement by subscription. The sacred relics filled the coffers of every church that possessed them. The Agnus Dei — a piece of wax from the paschal candle, stamped with the figure of a lamb, and consecrated by the pope — brought enormous revenues to the Papal See. The orthodox method of healing disease was so lucrative that the clergy could not bring themselves to admit its futility. They found ignorance so profitable that they dreaded knowledge. And for ages they continued to offer the most persistent opposition to medical science. It was not until the seventeenth century that a man arose brave enough to study in spite of them. That man was Vesalius. The church had always condemned dissection, but he practiced it notwithstanding, and laid the foundation of modern anatomy. In spite of ecclesiastical censure and popular fury, he haunted gibbets and charnal houses to secure material for his

investigations, risking at once the virus of the plague and the fires of the Inquisition. He was summoned before the Holy Office in Rome, but he fortunately died prematurely, and so escaped a worse fate. He lived long enough, however, to disprove two favorite doctrines of the Church. It was believed that on one side of a man there was a bone less than on the other, the missing one having been used in the creation of Eve. But Vesalius found both sides alike. It was also believed that there existed in the human form an incorruptible and incombustible bone, which would be the nucleus of the resurrection body. But Vesalius could not find it.— *Rev. Dr. Momerie, in the Humanitarian.*

THE PHILOSOPHY OF NOISE.

A WOMAN suffering from neuralgia stations her son to keep boys from making a noise in front of the house. A boy comes by whistling,— a performance in which we must recognize a natural, wholesome, and boylike act,—whereupon there ensues a short, sharp fight between the pair, in which one is accidentally cut. The upshot is not important; the origin of it is.

It has long been usual to accord special privileges to invalids in relieving them from noise. Formerly straw would be strewn in the street, and thousands of persons who were not sick would be inconvenienced to ease the pains of one who was. In part, this custom was one of ostentation. It could be practiced only by the influential who were exalted by making themselves a nuisance. When death ensued, a hatchment was set up in the same spirit of vainglory. All the windows in the house were closed for a term, the duration of which was fixed by custom, but which bore a relation to the estate of the deceased and the consequent degree of exaltation descending upon his heirs.

All healthy animals delight in noise. The description includes barbarous folk and children. Dogs bark (curs only sneak off), birds scream, boys shout, girls clap their hands, cats yawl, lions growl, horses paw,— all animate nature responds to the exhilaration of noise. The sick do not. In every form of sickness the nervous function is deranged. As we have seen above, mankind has shown its appreciation of this fact by its customs. Excessive sensibility to noise is thus one symptom of neurotic degeneration. It is the mark of one broad distinction between the state of civilization and its opposite. It testifies to one part of the price which that state exacts from man on his physical side.

Within civilization itself indifference to noise is one of the distinctions of a system rudely healthful, both in body and mind. The converse of this proposition is equally true. Whenever a person displays peculiar sensitiveness to noise, we may know that the case is one of an unwholesome mind in an unwholesome body. From the fact that the disturbance is essentially a neurotic one, it follows that it is controllable to a great extent by the will. Much of the disturbance that is experienced from noise can be put completely aside by exercise of the will. A barking dog may keep one person awake while his healthier or wiser neighbor sleeps the sleep of the just. Under the pinging of the cable car bells a valetudinarian subsides into frenzy, while his younger clerk is lapped in dreams of the equally unconscious typewriter on the next floor. The contrast here need not be one of relative strength of mind merely; one of the two minds is sick.

In such a case the will power is impaired. It would probably be found that the complaining person is also irritable, passionate, perhaps consumed by self-contemplation. In many cases of this kind relief could no doubt be gained through treatment by suggestion, but in vastly the greater number the patient is competent to minister to himself. He is still capable of exerting the will, and in this exercise lies complete and permanent cure. Furthermore, the cure does not apply alone to the particular noise that may have called for it. It will be found to have influenced the mind permanently. The injurious effects attributed to noise do not proceed from without, but from within. They do not inhere in the aerial vibrations, but in the mental response made to them.

Finally, it ought to be observed that the disease is one that increases by being yielded to. The noise that is first noticed as an annoyance in some moment of irritation, anxiety, or other nervous disturbance, can be nursed into an object of horror. Time was when folks thought sensitiveness to noise to be evidence of high-strung character. They were rather proud of it, and trotted it forth in public. The world knows better now: and since it has learned how much sickness is either a fruit or a phase of ignorance, it is getting a little sick of those sick folks, at least those from whom it has a right to look for something better.— *New York Evening Sun.*

THE SECRET OF MR. GLADSTONE'S VIGOR.— Mr. Gladstone being asked the secret of his vigorous health at the age of eighty-three years, replied as follows : —

"There was once a road leading out of London," he said, "on which more horses died than on any other, and inquiry revealed the fact that it was perfectly level. Consequently the animals in traveling over it, used only one set of muscles. Continuous employment of the same physical powers on the same lines results in physical exhaustion. It is varied and symmetrical exercise of all the muscles that lies at the base of any sound system of physical training. The same principle may be applied to the brain. It is not work that breaks men down before their time, it is irregularities in work. What is destructive to nervous force and intellectual vigor, is continuous concentration of purpose upon the same object. What the great majority of workers need is not the rest that comes from complete cessation of activity, but rather the rest which comes from change of employment."

Regarding this a contemporary remarks : —

"Mr. Gladstone's career has shown that a prodigious amount of work can be done without producing physical or mental exhaustion, provided it be constantly varied. His outdoor life has come into notoriety from the unusual form of his recreation — that of felling trees in Hawarden Park ; but the importance of such exercise has been exaggerated. He has always been fond of walking, just as Wordsworth was ; but for the ordinary recreations of an English gentleman, riding, hunting, fishing, or cricket, he has never displayed much inclination. While he has invariably arranged his life so as to allow the natural man a fair degree of fresh air and physical exercise, he has not followed any system of hygienics. What he has been careful to do is to avoid continuous intellectual labor on the same level. He has never been so deeply immersed in public affairs as to lose sight of his early classical studies, or his refined taste for Italian literature, or the varying phases of religious or economic controversy, or the trend and tendencies of English fiction. Always at work in Westminster or in his library, he has never lacked either inclination or leisure for taking up subjects of opposite kinds. This has been one secret of the wonderful intellectual vigor which he has never failed to display.

"The brain of a great worker like Mr Gladstone, needs precisely what the eye requires : the restful effects of changes in the angle of vision. It was a habit which the Prime Minister formed early in life, to be constantly studying, yet never wearying himself by exclusive devotion to any one subject. It has not only tended to make him a many-sided man with inexhaustible resources for interesting the public in his speeches, writings, and personality, but it has also prolonged his life and kept his working power unimpaired. It is not hard work that kills men in this overwrought, busy world. It is the dead level of continuous absorption in business or thought that slowly paralyzes the worker. Sir Henry Maine, starting with delicate health and pursuing with unremitting zeal his studies respecting the origin of law, was fast falling into a London grave when he received a commission for India. For a long period he had a complete change of thought and pursuit, and he returned to England with many years of successful labor in reserve. He had not been idle in India, but he had been enabled to work and to think on a new level and in a new way. That is what Mr. Gladstone has done all his life."

HEALTH A DUTY.— Perhaps nothing will so much hasten the time when body and mind will both be adequately cared for, as a diffusion of the belief that the preservation of health is a duty. Few seem conscious that there is such a thing as physical morality.

Men's habitual words and acts imply that they are at liberty to treat their bodies as they please. Disorder, entailed by disobedience to nature's dictates, they regard as grievances, not as the effects of a conduct more or less flagitious. Though the evil consequences inflicted on their descendants, and on future generations, are often as great as those caused by crime, yet they do not think themselves in any degree criminal.

It is true that in the case of drunkenness the viciousness of a bodily transgression is recognized ; but none appear to infer that if this bodily transgression is vicious, so too is every bodily transgression. The fact is, that all breaches of the laws of health are physical sins.

When this is generally seen, then, and perhaps not till then, will the physical training of the young receive all the attention it deserves.—*Herbert Spencer.*

"Do you enjoy good health ? "

"Of course. Did you ever know any one who did n't enjoy good health ? "

"Yes, the doctors."

"SMOKING not allowed," is one of the rules of the Peary Arctic expedition.

HOW NOT TO BE FAT.

BY J. H. KELLOGG, M. D.

Address delivered at the Bay View Assembly, July 28, 1893.

(Continued.)

THE great remedy for obesity, whether general or local, is work. But the exercise must be accompanied with proper diet. The diet of a person suffering with obesity need not be a starvation diet; it need not be a diet which will exclude all fat-making elements. It should be a dietary which is moderate, which does not contain any excess of fat-making elements. It must be a dietary which contains a little less food than the body actually needs. If a person is going to reduce his fat rapidly, he must eat considerably less than the actual needs of the body demand. In doing this he will feed upon his own body; he will use up the reserves. It is the same as with the locomotive: If it takes on less coal than is used from one station to another, of course the amount of coal in the tender will be diminished. So with the body; the amount of residual tissue which is stored in the body will be lessened, provided we take in each day an amount of material less than we actually use. The diet must be plain; it should be well regulated and well proportioned. It is not necessary that this dietary should be absolutely free from starch or sugar, but there should be no excess of these elements and no excess of fat. If a person has a great excess of fat, and wishes to get rid of it as rapidly as possible, he should confine himself to a single article of food — it makes but little difference what it is. It may be bread, if you please — hard bread, dry bread; it may be crackers, it may be fruit or nuts, it may be almost any one article you like; but let it be one single article. I do n't think I would recommend it to be roast pork or roast goose with cranberry sauce, but some one particular article of plain, wholesome food. If a person will adopt that plan, the result will be that the monotony of the diet will very soon lessen his appetite, and will thus establish a sort of starvation cure.

The use of an exclusive flesh diet is to be rejected as a means of curing obesity; not because flesh is not free from fat-making elements, for in this respect it is a food well suited to a person suffering from obesity, but because in taking flesh, the obese person takes into his system substances which are objectionable. The eliminative organs of the man who is suffering from obesity are overworked. In the body of the man who is very fat there is an excess of waste matters through accumulation, and the kidneys are, as a rule, not so active as they should be. All the eliminative organs are less active than they should be. Now in taking meat, the individual is taking into his system a large amount of material which was in the animal when it died, and was on its way out of the body. It is impossible to utilize more than three ounces of water-free flesh food per day. This is equivalent to about nine ounces of food in its ordinary state. If a person eats nothing else but meat, he will take at least two pounds a day. Now all over nine ounces must be eliminated as waste matter. The consequence is that if a person eats nothing but this kind of food, he is likely to introduce into his system so much nitrogenous material that great injury to the health may result.

Exercise is the great remedy for obesity, because

by exercise we burn up the residual tissues. We may regulate the amount of fat accumulation in the body by exercise. Exercise, force production, and heat production are the means by which the fat is used up. If we use up, by exercise, all the fat-making elements that we take in, there is nothing left to be deposited as fat. It is like the locomotive which burns up all the coal taken in before it gets to the next station, so that there is no accumulation of coal in the tender. If it burns less coal than it takes in, and continues to do so, the coal will accumulate, but if it burns more than it takes on from station to station, the coal in the tender will diminish, and by and by it will become empty. So by exercise we may regulate the amount of deposited tissue.

If one wants to reduce his flesh rapidly, he must both increase his exercise, and at the same time diminish his food supply. A great obstacle which arises in the treatment of the obese person is the fact that he cannot exercise easily. A person who is over-fat is in the same condition as the very fat hog, or horse, or ox. Exercise is laborious for him. He gets quickly out of breath, because there is an accumulation of fat within the chest, and thus the normal chest capacity is diminished. We have about 2000 square feet of respiratory area; that is, if the mucous membrane of the lungs were spread out on a level surface, it would cover 2000 square feet. In the over-fat person the area is diminished to one half or less than one half the normal extent. So we find the person who is over-fat always panting for breath when he is active. He has to take many short breaths because his respiratory field is so small that he can take in but a small amount of air, and as soon as he undertakes to walk rapidly, or whenever he goes up-stairs, or up an ascent of any kind, he is out of breath. A fat person is in the condition of a man suffering from pneumonia which has closed up one lung, or from pleurisy which has so confined a lung that as soon as he undertakes to exercise, he finds himself out of breath.

Another reason why the obese person soon gets out of breath is because he carries a heavy burden. A man having another person of his own weight upon his shoulders cannot walk far without being out of breath; he breathes short because he is working hard.

Another reason for shortness of breath in the obese person is that there is an accumulation of poisonous substances, the influence of which in the system produces shortness of breath. One reason why we have a desire for air is because, by exercise, we have produced certain poisonous substances, which act upon the nerve centers, and produce the sensation of breathlessness. The great quantity of adipose tissue clogs the living tissues so they are not as well purified as they should be, and a great quantity of waste matter is thrown into the blood by the slightest exercise, which produces this desire for air in order to burn up the poisons.

A person who is obese cannot take exercise without discomfort. Nevertheless he must exercise. Now what exercise shall he take? He must begin with very moderate exercise, and he must take, consequently, a large amount of it. He must avoid such violent exercises as cause great shortness of breath. He must take moderate exercise for another reason, and that is, that if he takes a great amount of exercise so as to become greatly exhausted, he will suffer from what is termed consecutive fatigue, a condition resembling founder in a horse.

When a person suffers from consecutive fatigue, he is in a state of poisoning from the breaking down of tissue through exercise. Now a person who is obese is bordering on this state all the time. This is the reason an over-fat person is so subject to rheumatism and gout. Over-fat persons are more subject to such diseases than others, because their systems are full of the poisons which produce these diseases.

So the individual who is obese must be careful not to exercise to the extent of great exhaustion. Nevertheless he must exercise until he is tired. It is necessary that he should take moderate exercise, but a great deal of it. He must work until he has taken as much exercise as he ought to take, then rest a little while and exercise again. Thus he must tire himself out several times a day.

Persons who undertake a cure by this means, but take too little exercise, may get fatter than ever. Patients have said to me, "Doctor, it is no use to prescribe exercise for me. Exercise doesn't do me any good. I have often tried walking, and I just got fatter all the time, and I don't think walking is the thing for me. I need something in the way of medicine, pills, or something that will remove fat, for I am sure that I cannot be cured by exercise." This was because the amount of exercise taken was just enough to stimulate nutrition and not enough to burn up the surplus tissue.

An obese person, after a time, gets indolent. He is disinclined to exercise. He has so much labor in carrying about his big load of fat that it is hard work to move, and he gets discouraged, and dislikes effort. He then gets weak, his heart loses

force, and he has palpitation of the heart when he tries to exercise, and feels greatly exhausted when he undertakes to go through a few active movements. So he abandons exercise, and seeks some other remedy for carrying off his fat. But there is no other remedy. Exercise in connection with proper diet is the only remedy for obesity. One cannot starve himself until the fat is carried away, because he would die before attaining his object; no one ever reaches that point. Those who try the hunger cure get so ravenously hungry after awhile, the demand for food becomes so intense, that they must eat. They then return to their former diet, and become fatter than ever.

Exercise, as has been shown, corrects a fundamental difficulty; it reaches the root of the disease. But it is necessary to have exercise enough to get tired many times every day. The exercise must be sufficient to cause free perspiration several times.

(To be continued.)

WHY THE BODY SHOULD BE CULTIVATED.

THE important subject of physical culture is not considered as it ought to be by the majority of men and women and there is almost absolute ignorance of the make-up of the body on the part of even intelligent people, with little desire for such knowledge, although health, beauty, and success depend largely on the treatment given to the body. Mental acquirements are blindly worshiped, while the essential question of health receives little thought, and hence it is almost impossible to find men in the ordinary walks of active life, at middle age, who do not complain of impaired health and want of vital force.

Without a sound body one cannot have a sound mind, and unless proper attention is given to the culture of the body, good health cannot be expected. Plato is said to have called a certain man lame because he exercised the mind while the body was allowed to suffer. This is done to an alarming extent nowadays. Brain-workers, as a rule, exercise no part of the body except the head, and consequently suffer from indigestion, palpitation of the heart, insomnia, and other ills, which, if neglected, generally prove fatal. Brilliant and successful men are constantly obliged to give up work through the growing malady of nervous prostration; the number of those who succumb to it has increased to an alarming extent of late years, and that of suicides hardly less. Few will question that this is owing to over-working the brain and the neglect of body-culture. Vitality becomes impaired, and strength consumed by mental demands, which are nowadays raised to a perilous height, and it is only by careful attention to physical development and by judicious bodily exercise that the brain-worker can counteract the mental strain. Women rarely consider the importance of physical culture, yet they need physical training almost more than men do. Thousands of our young women are unfit to become wives or mothers, who might be strong and beautiful if they gave a short time daily to physical development.

Physical training is particularly beneficial to the young of both sexes, and educators are becoming alive to the fact. Many of the leading colleges have included this subject in the curriculum, and spent large sums in facilities for the purpose. It is to be hoped that the minor seats of learning will speedily follow the example, and a more general interest be awakened in the importance of physical education for the young. This is a duty which parents should not neglect, for they are as strictly responsible for the bodies of their offspring as they are for their souls.

It is a mistake to think that the gymnasium is a place only for the young. All who lead sedentary lives, even when past middle age, can improve their bodies by gymnastic exercise. Mr. Gladstone by earnest physical exercise has built up a strong and healthy body, and he is fond of saying that daily exercise keeps him in permanent health and in a condition to resist disease. The use of gymnastics creates conditions which develop the nervous system.

There is no time in a man's life when he can afford to dispense with exercise; unless he faithfully and persistently develops his physical resources, vitality becomes impaired. Exercise does for the body what intellectual training does for the mind; yet most men who lead sedentary lives take little or no exercise, with the result that they overwork the brain, making it incapable of recuperation by nutrition: hence irritability, then insomnia, and often the thinking faculty breaks loose from the control of the will, resulting in insanity and possibly suicide.

Physical exercise aids digestion, improves the physique, clears the mind, and gives grace and assurance. Man's destiny as regards the body is to a

great extent in his own hands, and he should study the needs of the body, if desirous of enjoying life. Unless disease is inherited, every mortal born into the world is physically healthy; and if proper attention be given to physical culture, there is every chance of a long life; but if neglected, premature death is generally the result, for when disease attacks the frame, there is not sufficient physical strength to resist it. Perfect health can exist only when the muscles are perfectly trained; and habitual exercise favors the elimination of effete matters from the system, food is more easily digested, and nerve-power enhanced.

It is in the power of any one to improve his physical condition, and all who desire symmetry of form, grace of action, and permanent health, should give attention to the art of developing the body.— *Wilton Tournier, in Lippincott's.*

TRAINING THE NERVES AND MUSCLES.

DELSARTE said: "Drop all useless contractions before you try to express or act." This thought, planned for dramatic training, has been found to be invaluable to all arts, all living. As we watch the motion of an animal, we see that there is no unnecessary use of force. Each muscle contracts just enough to accomplish the action, then instantly drops into relaxation; each nerve directs its relative muscles with perfect adjustment. In man it is not so. A muscle rarely contracts just enough for its action, but overcontracts, with bad results of different degrees; the nerves directing the action, instead of giving just the help needed, strain in doing what the lightest touch should have accomplished. In consequence of this misuse, we have yearly many cases of nervous exhaustion, and ills too numerous to name. If we should make the tension of a sewing-machine far too great, and then set our machine running at a rapid rate, we should expect it to break. But we do a similar thing when we lead a life of high pressure without using economy of our nervous and muscular forces. We must learn to drop instantly into a state of rest in order to adapt ourselves successfully to the advantages in which we live; in order to make them our servants instead of our masters. One often sees an overworked woman drop asleep for a few minutes, and wake temporarily refreshed. Experience teaches this to many, but all can learn it and much more. For all can learn not only to drop instantly into a state of rest, but to carry their work by such natural principles of low pressure that there will be less tension to drop. The first step toward this state of balance (action and reaction being so nicely adjusted) is to learn to rest more fully when under good conditions. "A body cannot be perfectly active until it has the power to be perfectly passive." Perfectly passive describes a full state of rest, in which body and mind lay down every occupation and are open to replenishing influences. No muscular contraction must be retained; no mental contraction must be retained; we must lay down all worry, refrain from nourishing any personal wound or other burden, and be free, while we rest from everything which belongs to our acting life.— *Christian Union.*

"WELLESLEY FLOAT."— If light hearts make quick brains, as most are apt to believe, the exercises and the joyful songs of Wellesley Float should result in better work in the classes at Wellesley College; but scientists are not satisfied with a general supposition. The measurements which are taken of girl students from month to month prove that by the work on the lake taken under scientific directions the vital organs are strengthened, the girth of the chest is larger, and the strength of the back is improved. The effect of rowing upon the scholarship has not yet been tested by statistics, but it is noticed that some of the brightest girls in the classes are to be found in the crews. In the Sophomore boat are to be seen one of the most brilliant mathematicians, a leader in the Shakespeare Society, and girls who are noted for excellence in general scholarship. The claim of the enthusiastic amateur oarsman, that "rowing seems to be the most favorable exercise for a high development of mind and body," may be proved at Wellesley. — *Grace Weld Soper, in Harper's Bazar.*

REMEDY FOR DROWSINESS.— Get up and take a walk; do not take violent exercise, but take a brisk walk, taking pains to breathe deeply. If so situated that a walk is impossible, rise up on the toes, raise the arms, and fill the lungs, and then return to the first position. Repeat this thirty or forty times, and you will be wide awake. Open the windows also, and let in the fresh air. J. H. K.

SINS AGAINST OUR CHILDREN.

BY DR. MARY WOOD ALLEN,

Superintendent of the Social Purity Department of the National W. C. T. U. Abstract of a Lecture delivered at the Sanitarium, July 8, 1893.

WHEN a little child is given us, we think it is for our pleasure and amusement, but really a child belongs first to himself, and secondly to God. Perhaps you think that I should put God first, but he says, "Son, give me thy heart," and how could he be asked to give that which is not his? A child, then, is not ours until after he is his own and God's. His rights, his comfort, his welfare, should never be infringed upon. He has a right to sleep, and should never be awakened simply for the sake of being shown off to some admiring friend. He has a right to a training which shall fit him for a useful, happy life, but instead he is often treated as a plaything. We begin by teaching him things that will be his sorrow in later life, and for which we must soon chide him.

We often begin to teach the child intemperance in babyhood in various ways; one is through the use of Mrs. Winslow's Soothing Syrup. The mother who uses ale or beer is teaching her child intemperance, and the sleep of such a child is merely a stupefaction of drunkenness from the liquor which it has taken with its mother's milk. Children are further taught intemperance by irregularity in eating. If a child cries, the mother gives it food; and if in infancy a child's pain is quieted by putting something into its mouth, we need not be surprised if, in later life, he seeks to drown pain or trouble by the use of intoxicants. People teach children intemperance by giving them condiments, spices, and pepper, and tea and coffee. We teach them intemperance in eating by making the sense of taste paramount to all else.

We deliberately teach our children disobedience, and then wonder why they do not obey. We say to a child, "If you touch such an article, I will punish you." He takes it, and plays with it for awhile perfectly happy, and his mother lets it pass. Another time, perhaps, he is punished, because his mother cared more in the one case than in the other, and so he learns to watch indications, and finds that he can disobey with impunity up to a certain point.

We combine together as friends to teach each other's children disobedience. With regard to my own children, I used to think sometimes that we should pray to be delivered from our friends. My little boy was not allowed to eat between meals, and one day a lady gave him an apple. He said that mamma would not like to have him eat it, when the lady replied, "Nonsense! if you were my little boy, I would let you have all the apples you wanted." Up to this time he had not considered it any hardship not to eat between meals, and had not wanted to disobey, but now he came home with a little pout, and said, "If I were Mrs. Brown's little boy, she would let me have all the apples I want."

Again, we teach our children dishonesty. The father going through a grocery store, picks up some little article, and hands it to his boy. If anybody should tell him that he had performed a dishonest act, he would be indignant, but it was dishonest. We sometimes teach our children dishonesty by our shrewdness. The fact that we escaped paying our nickle on the street car seems a thing of slight importance to us, and yet the observing child learns dishonesty from it, and seeds are planted which may develop later into a tree with bitter fruit. We teach our children dishonesty by professing to give them things which we really do not give, as in the case of the man who gave a colt to his son. The boy petted it and cared for it, and was always allowed to call it his; one day he came home and found that his father had sold it, and when he remonstrated with his

father, he received the laughing reply, "Yes, the colt was yours, but the horse is mine." Such a lesson in dishonesty as that would never be forgotten.

One mother told her restless little girl, when riding on the cars, that when the conductor came along he would cut off her nose. As the conductor came in sight with his gleaming punch, the child grew more and more frightened, and hid her face behind her mother, but when the conductor merely took her mother's ticket, punched it, and passed on, the child raised her head, and said, "Mother, you lied."

We teach our children cruelty. The baby is sometimes taught to pull his little sister's hair, and the little sister pretends to cry, and everybody else laughs. He is taught to strike his mother a little blow in the face, and while she makes believe cry, the rest laugh, and in this way he is taught to take pleasure in the pain given to others. By and by he slaps his mother in the face in a fit of anger, and perhaps the mother turns around and whips the baby, and thus he is given a lesson in retaliation. Or, it may be in falling, the child hurts its head upon the table, and to pacify the child, the mother says, "Naughty table, to hurt the baby." And perhaps she strikes the table. Queen Victoria was wise enough to dismiss a nurse whom she caught teaching one of her children retaliation in this way.

We teach our children vanity by the attention which is given to dress. A little girl is sometimes taught to know the difference between real and imitation lace or diamonds and paste at a time when she should know nothing about either laces or diamonds.

A child was asked if she did not want a new cloak. She did not care whether she had a cloak or not at first, but the mother said, "Olive has a new cloak, and you want a cloak nicer than Olive's, do n't you?" and the child had its lesson in emulation. The system of prizes and contests in our public schools has a pernicious influence in teaching the contestants envy and emulation. Children should never be taught to display themselves for prizes or for praise, yet children are continually called upon to show off, not only how well they can do, but how much better they can do than somebody else.

Again, plain children are often tormented and made to suffer keenly by unfavorable comments on their personal appearance. One child hears so much about her "peeled-onion eyes" and "shovel teeth" that she is at a perpetual disadvantage in the company of strangers, and thus made painfully self-conscious.

Children are also taught jealousy by their parents. One mother used to threaten her little boy in this way, "Now, if you do n't mind me, I will take cousin Dick to be my little boy!" and the mother wonders sadly why it is her little boy does not like cousin Dick, when the child continually sees in his cousin a possible usurper of his place and his rights in his mother's affections and care.

We infringe upon our children's rights to their own persons and inclinations. For instance, in the matter of kissing. A great deal may be said against kissing on sanitary grounds, but those are not the only ones. I believe mothers should make it a rule that children should not be kissed by people outside the family, and never by members of the family unless the children are willing to receive the caress.

We teach our children immorality. This seems like a very grave charge, but it is nevertheless sadly true. They are made self-conscious when little boys and girls by being designated as lovers and sweethearts instead of being allowed to play together in right good comradeship. One mother was lamenting to me that her girl of fourteen was continually talking with other girls of the same age about the boys, and that she did not seem to think of anything else but beaux. At the tea-table that night, the father turned to his little daughter and said, "What have you been doing to Charlie? I saw him on the street and he looked so down-hearted that I thought something must have happened." And the little girl blushed and looked down, and the father seeing that she was teased, continued his badinage. When I had an opportunity, I called the mother's attention to this incident, for she was a kindly mother who wanted to do right by her child, and told her that this accounted very easily for her daughter's thoughts and conversation being continually upon sentimental relations.

Said a bright young girl to me one day, "I wish that young people could sign a pledge to be just friends, and then we could have good times; but now if Harry comes to see me, and I treat him pleasantly it is likely to give him the impression that I am trying to set my cap for him; and if he is nice and friendly to me, I am under the fear that he may have intentions which should not be encouraged." If we would only allow young people and children to grow up in natural, frank comradeship, and thus know each other's good qualities and failings, they would have a much better chance to form true, happy alliances when they became of marriageable age. Malthus says, "If only young people could have this friendly interchange of association without sentiment, it would form the surest basis for happy marriage."

SLOYD WITHIN A CIRCLE.—NO. 12.

BY MRS. M. F. STEARNS.

THE "old woman who lived in a shoe, and had so many children she did not know what to do," deserves great sympathy, perhaps though our sympathies the children something to do. For *do* something they must, and if the doing is not provided for them, that maxim still holds good and the enemy of all

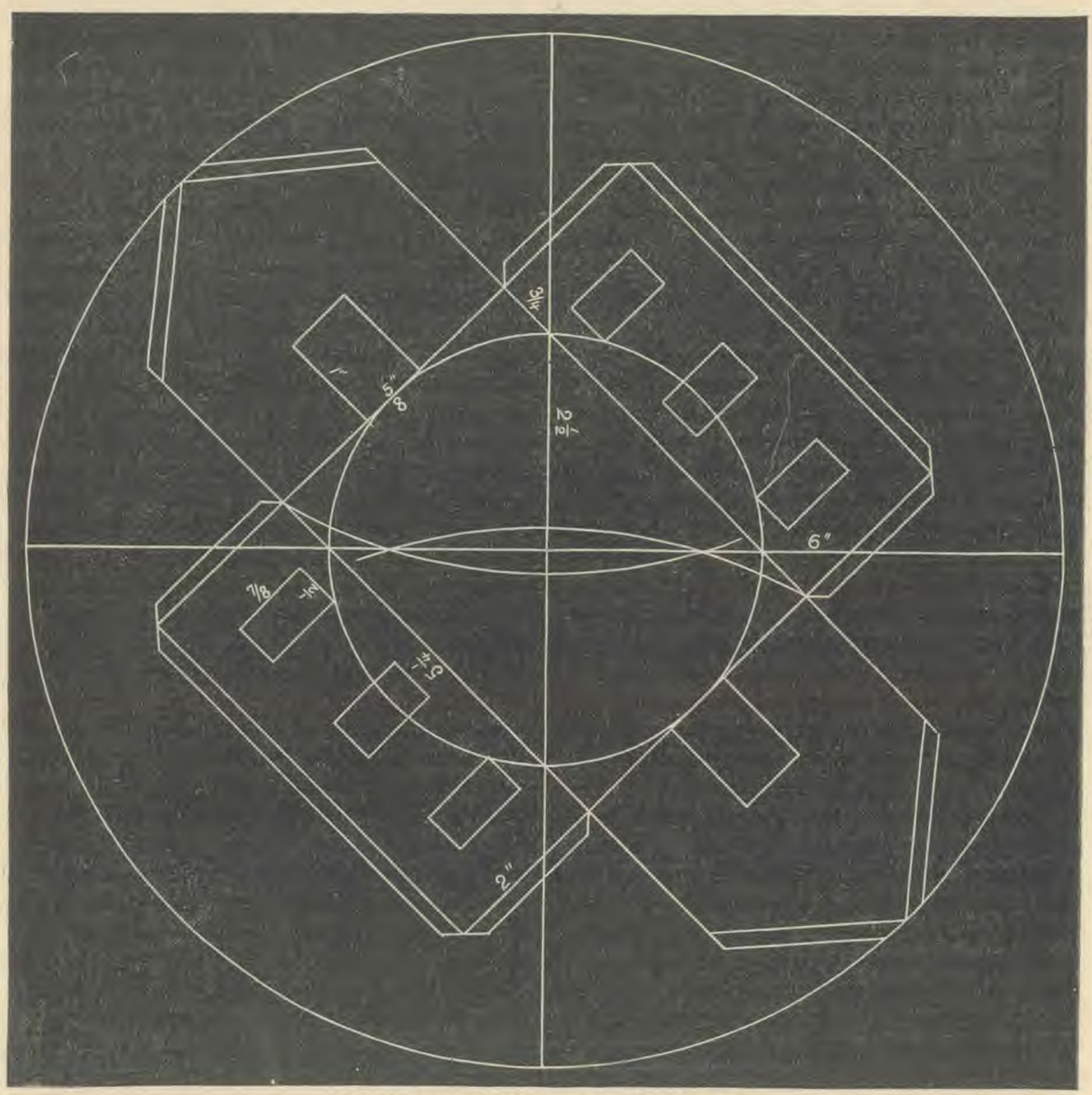

FIG. 33. WORKING DRAWING FOR WALLS OF HOUSE.

would better be on the side of the "many children" who were whipped all round and sent to bed. Evidently she lived before the days of kindergarten and Sloyd, or that song would never have been written. If she lived at present she would immediately invest in a good supply of Sloyd materials, and give right doing has yet plenty in store for the idle hands. When we consider the many advantages to be derived from Sloyd work, of how it trains the mind to think, the eye to see, and the hand to execute, is it not worth while to teach it to the children, especially considering its agency in developing the moral nature?

We are often amused as we read in our "dailies" or "weeklies" of the remarkable (?) remedies that always benevolent "patent medicine man has in store for every affliction to which flesh is heir, and the truly remarkable way in which he palms off these never failing cure-alls on the confiding public; so it may perhaps appear that the Sloyd advocate, like the "patent medicine man," at the end of every recital of human ills, pulls out a little dose of "Sloyd Specific" that is sure to produce just the required result. This, however, is more than is claimed for it. Any system of work equally well graded and equally well adapted for the school and home, as the paper, paste-board, and wood Sloyd, would yield equally good results.

It is not claimed to be a "specific" for all educational ills, but that it is very rational treatment for many of them, all will admit.

It might be well to suggest to Santa Claus at just this time not to forget to put in a few Sloyd outfits in his interesting pack before he takes his annual trip to the chimney tops this year, and then we can all join in wishing the children a "busy" as well as a Merry Christmas and Happy New Year.

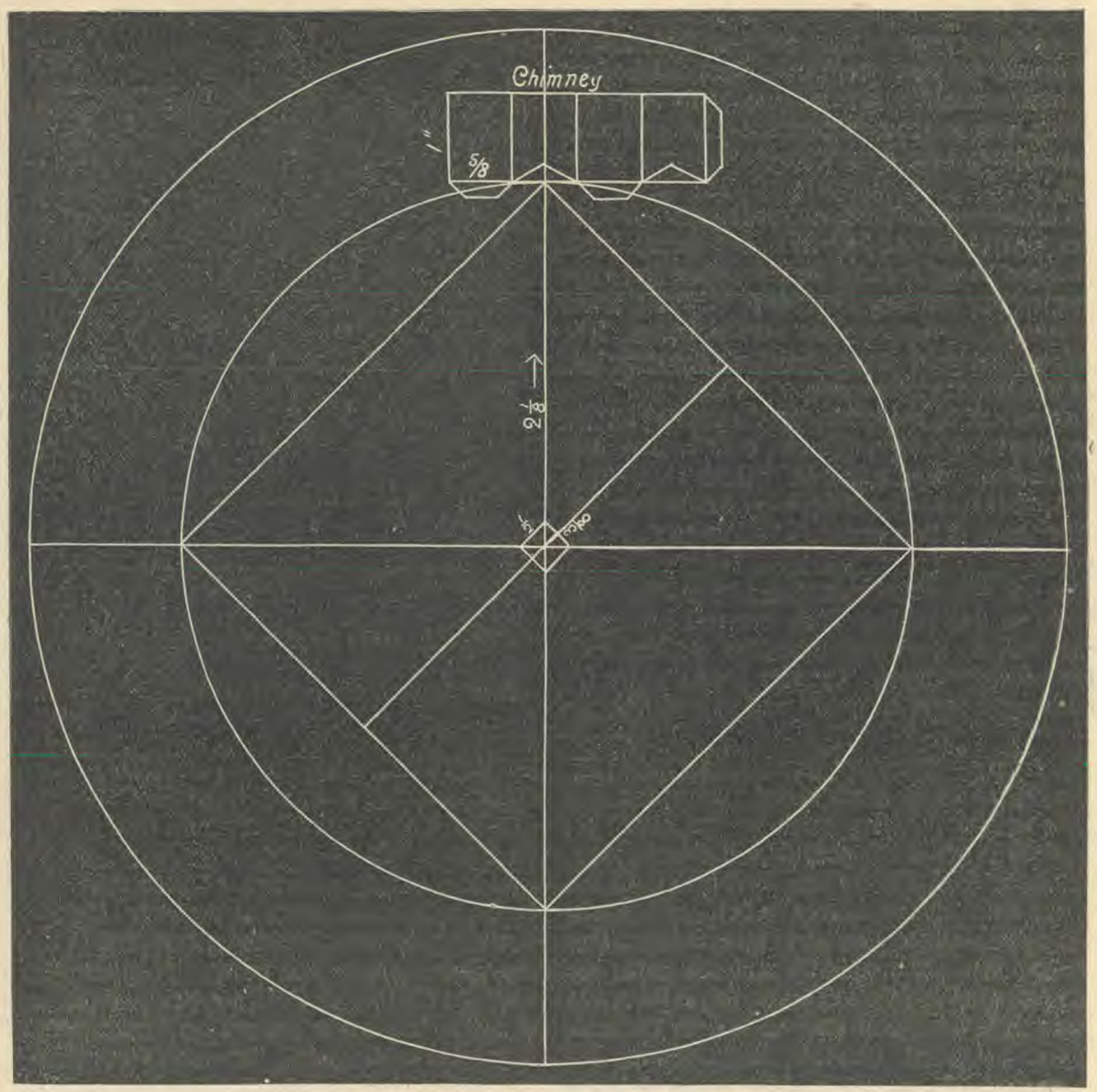

FIG. 34. WORKING DRAWING FOR ROOF OF HOUSE.

To get our last model — the house — from the twelve-inch circle, draw a diameter and bisect with

a smaller circle. Spread compasses two and one half inches, and describe a small circle within the other. On the points where the circle cuts the diameters, place the rule, and draw lines extending three fourths of an inch beyond each of these points. Connect these lines, and an oblong base for the house is formed.

For the side walls of the house, extend the base lines of the ends two inches, and connect these points. On each side draw margins one fourth of an inch. For the ends of the house, extend the side base lines two inches, and from each of these points draw equal slanting lines to the circumference, and on each of these slanting lines draw margins for roof to rest upon.

In each side of the house cut openings for windows, seven eighths by one half inch, and on the inside before the house is glued together, paste two strips of paper, one sixteenth of an inch in width, across the opening, to represent the window sashes. The windows should be cut one half inch above the side base line and one inch apart.

In each end of the house, cut the opening for the door, one by five eighth inches, only cutting three sides, that the door may fold back as on a hinge. The doors should be cut directly up from the base line.

The house is then ready to fold and glue on the margins.

For the roof, describe another twelve-inch circle, and within this another circle two and one eighth inches radius; draw two diameters crossing each other at right angles. Connect points where the circle crosses these diameters, and a six-inch square for roof is formed. In the center, cut a small opening for the chimney, three eighths by one half inches. Make the chimney of four sides, one by five eighths inches, notch two ends with the same angle as the roof, put margin on the other two ends of the base, and glue together on side margin. Glue over the opening in the roof, after the roof has been carefully folded and glued onto the house, and the little house is then ready, chimney and all, for a visit from Santa Claus.

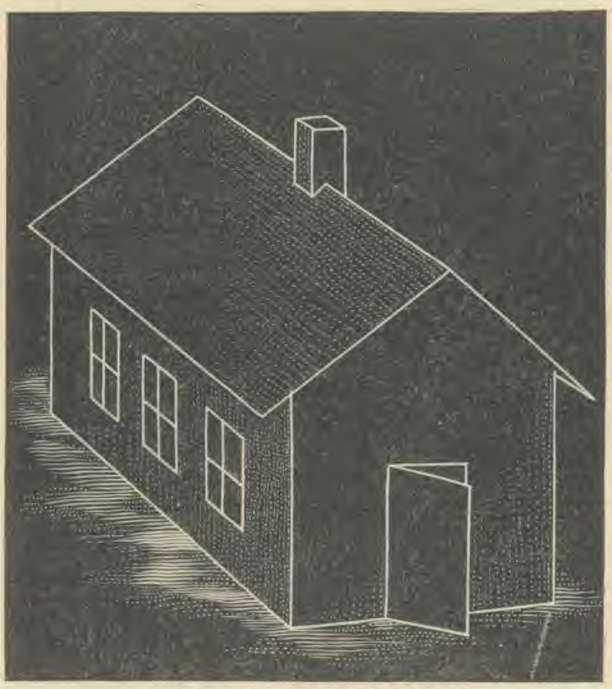

FIG. 35. THE HOUSE COMPLETED.

CHARACTER. — Character grows, for the most part, insensibly, as the life grows at first. Now and then it gets notable impulses which we can mark, but commonly it grows imperceptibly, like our bodies. It drinks in food, like the tree, from both earth and sky, and from hidden sources in both, and, like it, shows its whole history on its boughs and branches from the first. The sunshine and the storm, the cold north wind and the soft south, the knife or the neglect, write themselves all over life, in its knots of gnarls or smooth branches, in its leaning this way or that, in its stunted barrenness or broad shadow, its bending fruitfulness or its woody wantonness — not a leaf but leaves its mark, not a sunbeam but has told on it, not a rain-drop but has added to it. The same tree that is soft and spongy in a fat swamp, with its heavy air, grows hard and noble on the hillside. Spitzbergen forests are breast high, and Nova Scotia hemlocks mourn their cold, wet sky in long, weird shrouds of white moss. The influences round us are self-registering. Our spirits, like the winds, unconsciously write their story in all its fullness on the anemometer — life; slowly in light airs, quickly in storms, all goes down. Little by little the whole comes in the end. Single acts may show character, but they seldom form it, though some are supreme and ruling. It grows ring by ring, and the twig of this year becomes the bough of next. Our habits are another name for it, and they grow like the grass. The man's face lies behind the boy's, but it comes out only after a round of winters and summers. — *Dr. Geikie.*

QUEEN VICTORIA is said to be a skillful knitter, and works at it indefatigably. She has knitted, with her ladies, many quilts for the use of the wounded in hospitals during the campaigns of the British forces.

CARL HAGENBECK, a famous trainer of wild beasts, says: "Any animal can be trained if you get it young enough." May not the same be said of the human animal? With right training begun early enough and persevered in faithfully enough, any child may be led into a useful and honorable life. Every drunkard, tramp, criminal, and desperado is what he is because he failed, either in infancy or afterward, to receive the training he needed.— *Cumberland Presbyterian.*

INFLUENCE OF PARENTAL EXAMPLE.— It is not what we exhort children to be, but what we ourselves are, that really influences their character. Of what use to say, "Be sincere; be truthful," if, for instance, the child to whom we speak hears us receive a visitor with a cordial, "How glad I am to see you," and sees us listen to her with smiling attention, and then hears us say after our door has closed behind the departing guest, "Oh, what a bore that woman is! I'm glad that infliction is over with!" Again of what use is it to say that the gains of this transitory world are dross, and it is not what we have but what we are which is of real moment, if the childish eyes perceive that we are more disturbed by a fall in stocks, or a failure to receive an invitation to a fashionable party, than by some real fault of character, some violation of forbearance or justice in ourselves. Put on what deft disguises we may, the thing we *are* is apparent to the young eyes that watch us so unceasingly.— *Louise Chandler Moulton in Childhood.*

THE LESSER MINISTRIES.

A FLOWER upon my threshold laid,
A little kindness wrought unseen;
I know not who love's tribute paid,
I only know that it has made
Life's pathway smooth, life's borders green.

God bless the gracious hands that e'er
Such tender ministries essay,
Dear hands, that help the pilgrim bear
His load of weariness and care
More bravely up the toilsome way.

O, what a little thing can turn
A heavy heart from sighs to song!
A smile can make the world less stern;
A word can cause the soul to burn
With glow of heaven all night long!

— *Churchman.*

SOME SEASONABLE SOUPS.

Parsnip Soup.— Take a quart of well scraped, thinly sliced parsnips, one cup of bread crust shavings not thicker than a silver dime, from the top of a well-browned loaf of Graham bread, one head of celery, one small onion, and one pint of sliced potatoes. The parsnips used should be young and tender, so that they will cook in about the same length of time as the other vegetables. Use only sufficient water to cook them. When done, rub through a colander and add salt and sufficient rich milk, part cream if desired, to make of the proper consistency. Reheat and serve.

Savory Soup.— Take two cups of cooked split peas which have been rubbed through a colander, one cup of mashed potato, and one half cup of strained, stewed tomato, add sufficient hot water to make of proper consistency, season with salt and add an onion sliced. Reheat the whole until well flavored with the onion. Remove the pieces with a fork or turn the whole through a soup strainer when it is ready to serve. A little cream may be added if desired.

Celery Soup.— Cook in a double boiler a cupful of cracked wheat in three pints of water for three or four hours. Rub the wheat through a colander, add a cup of rich milk, and, if needed, a little boiling water, and a small head of celery cut in finger lengths. Boil all together for fifteen or twenty minutes, until well flavored, remove the celery with a fork, add salt, and serve with or without the hard-boiled yolk of an egg in each soup plate.

Chestnut Soup.— Shell and blanch a pint of Italian chestnuts, and cook in boiling milk until tender. Rub the nuts through a colander, add salt and sufficient milk and cream to make a soup of the proper consistency, reheat and serve.

Vermicelli Soup.— Cook a cupful of sliced vegetable oysters, a stalk or two of celery, two slices of onion, a parsnip, and half a carrot in water just sufficient to cover well. Meanwhile put a cupful of vermicelli in a quart of milk and cook in a double boiler until tender. When the vegetables are done, strain off the broth and add it to the vermicelli when cooked. Season with salt and a cup of cream. Beat two eggs light, and turn the boiling soup on the eggs, stirring briskly that they may not curdle. Reheat if not thickened, and serve.

GOOD HEALTH
J. H. KELLOGG, M. D., EDITOR.
BATTLE CREEK, MICHIGAN.

TOBACCO INSANITY.

THE deteriorating influence of tobacco-using upon the young was long ago recognized by the French government, leading to the prohibition of the use of tobacco by the students in the public schools. The Swiss government have taken even stronger ground upon this matter, forbidding the use of tobacco altogether to juniors. A boy found smoking in the streets is now promptly arrested and punished by fine or imprisonment.

Dr. Bremer, late physician to St. Vincent's Institution for the Insane, at St. Louis, has recently called attention to the fact that the use of tobacco by the young is productive of mental and moral deterioration, while in older persons the use of the weed produces brain disease and insanity. He attributes the obscure and unintelligible style of the philosopher Kant to his excessive use of tobacco, and he might with equal justice find in tobacco-using a cause for the notorious irascibility and pessimistic tendencies of the Scotch author Carlyle.

The editor of the *Review of Insanity and Nervous Diseases* announces his belief that many a nervous or idiotic child is the result of the tobacco-using habit of his parents. The baneful effects of tobacco-using are not so immediately noticeable as those of the liquor habit.

In view of the numerous facts pointing out the pernicious character of this drug, and the baneful effects of its habitual use, it is astonishing that physicians are not unanimous in their opposition to it. Still more astonishing is it that there are to be found many physicians who themselves indulge in the use of the weed. Dr. Bremer mentions the case of a physician who rewards his thirteen-year-old son with extra strong cigars whenever he obtains high credit-marks in school. It is astonishing that such a father should have a son capable of getting high credit-marks. The physician, above all other men, should be free from habits which, like tobacco-using, are noisome, repulsive, and degrading. — *J. H. K., in Modern Medicine and Bacteriological World.*

VEGETARIAN CATS. — The London *Graphic* gives the following interesting account of a vegetarian cat living at Hampton Court: —

"This strange creature has, at its own instigation and for unknown reasons, absolutely 'sworn off' flesh food of every kind, and lives in perfect health and sprightliness upon a diet which would delight a social reformer and kill any other cat in a week. Physically there was nothing remarkable about this feline reformer, but intellectually he was almost unique. His teeth were sound, his coat sleek, and he was no more sparse of flesh than a healthy cat of three years old should be. It was when his strangely unnatural vegetarian instincts were put to the test that the interest developed. We tried him first with reasonable food, and then with unreasonable. From a piece of liver he turned away with a virtuous disgust expressive of infinite abhorrence; he sighed over a tempting piece of beefsteak; and even a portion of fish, such as would have overcome the indolence of every other cat for miles, was only sniffed round and then left on one side as though to see if nothing better was forthcoming. The vegetables were then produced, and at the very first sight of a raw 6 in. scarlet-runner bean the whole aspect of the creature changed to one of lively enthusiasm, and, with a mew of the highest appreciation, he rose without a moment's hesitation to the bait. It was a strange sight, indeed, to see the bean being munched from end to end like a stick of macaroni

in the mouth of an Italian, and when it was done, another and another followed. Then I produced a cucumber which I brought for the special purpose, and this proved even more acceptable than the French beans, though it was to be noticed 'Barrister' carefully avoided the seeds and as much of the rind as possible. His owner then offered to continue the experiment with peas, cabbage stalks, carrots, or, indeed, almost any fresh or succulent raw vegetable I could name; but compassion for the cat, no less than perfect satisfaction with what I had seen, suggested that enough had been done."

THE GOOD NATURE OF THE JAPANESE.— Dr. Ernest Hart, editor of the *British Medical Journal*, with other travelers in Japan, remarks upon the characteristic good nature of the Japanese people, who in this respect are perhaps unequaled by any other nation in the world. Dr. Hart attributes the amiable disposition of the Japanese to the fact that their nervous systems are not irritated by a flesh diet, as is the case with Englishmen. When we reflect that our bodies are made of what we eat, and that flesh food, which is consumed in such great quantities by English and American people, always contains a considerable amount of poisonous substances which irritate and excite the nerves, and exert a baneful influence upon the whole body, it is not to be wondered at that a vegetarian nation like the Japanese should be more equable in temper and cheerful in disposition than nations whose brains and nerves are goaded by such exciting and stimulating foods as beefsteak, roast-beef, and all the fleshly comestibles which appear upon the daily bill of fare of the average Englishman or American. A reform in diet would do a vast deal in bringing about the social and moral reform for which so many Christian men and women are so earnestly toiling at the present day.

THE HOLY WELL OF MECCA.— It has long been known that many great outbreaks of cholera owe their origin to infection derived from the Holy Well of Mecca, in the western part of Arabia, to which thousands of Mohammedan pilgrims swarm every year. Mr. E. Franklin, of London, has recently made an examination of a sample of this water, and found it to be full of microbes, and to contain more impure animal matter than is found in the water obtained from the sewers of London. It had undergone some changes since it was taken from the Holy Well, which had caused the disappearance of a considerable portion of the animal matters, but the product which remained indicated that it had contained at least six times as much of the products of pollution as does London sewerage.

When it is remembered that all pilgrims who visit Mecca consider it a solemn duty to drink at the Holy Well, it is not surprising that cholera is constantly present among them, and that thousands of them continue to die at Mecca, and that through their agency the disease is extensively spreading through the country, often reaching our own shores.

A HORRIBLE BUSINESS.— The Austrian police have recently unearthed the fact that there has for a long time existed in Croatia an organization of men, or rather fiends, as they might more properly be termed, whose business has been the mutilation of small boys and girls to be used by vagabonds in soliciting charity in European cities. This horrible discovery calls to mind the frightful crimes of Burke and Hare, who kidnapped and killed many women for the purpose of selling their corpses to the medical colleges for use in dissecting rooms, a proceeding scarcely more diabolical than that which has just been brought to light.

This revelation is certainly horrible enough, nevertheless thousands of others are at this very moment producing in their young daughters deformities which must result in lifelong injury by constriction of the waist and other unnatural and unhealthful modes of dress. The deformity-producing processes to which men and women are subjected in our modern civilization are a crime against nature, as atrocious in character, and vastly more far reaching, than the crime against society which has recently been perpetrated by human monsters in Croatia.

NOT A BAD SUGGESTION.— Some years ago the health officer of Dublin announced the startling fact that human stomachs are the catacombs in which more than twenty thousand diseased animals are buried in England every year, to say nothing about millions of animals not known to be diseased, which find a graveyard in the alimentary canal,— a thought which in itself would seem to be sufficiently horrible to lead any human being whose senses are not obtunded by a gross diet, to exclude flesh foods of all kinds from his bill of fare. Oscar Wilde, on a public occasion in Paris, declared himself against the cruelty of this whole carnivorous business, in asserting that "butcher shops are opposed to æsthetic principles, and should be kept under ground." Certainly it would be a blessing to civilization if these headquarters of bloodshed and cruelty could be forever buried out of sight.

ALCOHOL AND VEGETARIANISM.

"Why do I place these two ideas side by side, when they are naturally so opposed to each other?" writes Franz W. Rubezek, of Vienna. "Because I know that many vegetarians indulge in the moderate use of alcohol. During the last few years I have read many books and pamphlets on teetotalism, and have become a great admirer of the earnest efforts of these men. I look at their movement as a supplement to the movement of the vegetarians. According to Professor Bange's statement, there are about twenty million teetotalers in the world, and their numbers are increasing every year. In America alone (which is sometimes called the land of passions), there are about ten million teetotalers. In London, England, there is a medical society which numbers about 600 members (mostly physicians), who not only do not use liquor or alcohol in any form personally, but do not even prescribe it for their patients. These are numbers and facts well worth the consideration of our degenerated race.

"The societies in Germany and other countries, which carry on the war against King Alcohol, believe that only personal example and deeds can be effective. These societies are effecting a great reform, for I believe it is much easier to become a vegetarian than a teetotaler. If one who is a teetotaler continues the use of meat, tea, coffee, spices, and tobacco, he is obliged to carry on a constant warfare with himself. Even if his cool, sober head warns him against unlimited indulgence in intoxicants, his exciting and irritating food is ever tempting him to intemperance, and he has to strive constantly against the desire for liquor.

"The fact that meat (especially fat) and spices produce an unnatural thirst, particularly a craving for alcohol, we do not need to prove physiologically; we all have experienced this more or less, before we were converted to teetotalism.

"Bange mentions the fact, that the most famous physicians of England attribute half of the diseases that afflict humanity to the use of alcohol. The very same is the case in Austria and Germany. Although I consider the movement of teetotalism as a great blessing, by close observation I have come to the conclusion that only when vegetarians and teetotalers have gained the majority and superiority in Parliament will the most powerful remedy have been applied to the alcohol habit. Until then we are far from our aim.

"Nevertheless, I shall always be interested in the movement, and shall encourage all readers of the *Rundschau* to show their interest in the distribution of books, pamphlets, and papers which uphold and defend teetotalism. I believe that out of the numbers of the teetotalers we have gained the most recruits for vegetarianism, because he who discards the use of alcohol, has only *one* more step to vegetarianism."— *Vegetarian Rundschau.*

Lemons versus Cholera.—An excellent illustration of nature's beneficial and protective arrangements is to be found in the fact that the acid found in the lemon and the orange is capable of destroying the poisonous germs which give rise to cholera, and perhaps also other diseases. Cholera is distinctly a disease of tropical countries which are the native home of the lemon, lime, and other members of the citron family. Recent investigations made by the imperial health officers of Berlin, show that cholera germs are destroyed in a short time after being brought into contact with the cut surface of a lemon, and do not survive more than twenty-four hours when in contact with the surface of the fruit. In consequence of the results of this investigation, no restriction will hereafter be placed upon the importation of these fruits into countries where cholera may be prevailing.

According to the *Vegetarian Rundschau*, "Princess Polly," aunt of the German Emperor, and daughter of the Queen of England, is very much interested in the vegetarian movement. Being an excellent lady of domestic tastes, she has recognized the fact that by the right use of vegetable products the misery and famine of the poor might quickly be checked, which in the English metropolis has become almost epidemical. To demonstrate her views in a practical way, she invited, some time ago, 300 poor children to a vegetarian dinner in Memorial Hall. The cost amounted to only about five dollars. To show that this is possible, we give the bill of fare: 37½ gallons of soup, containing 18 pounds lentils, 18 pounds rice, and 8 pounds dried peas; 8 pounds turnips, 8 pounds carrots, 8 pounds potatoes, 2 pounds onions and salt, ¾ pound butter; oatmeal bread and raisin bread as dessert.

VEGETARIAN INNS IN BERLIN. — All the vegetarian innkeepers of Berlin, with one exception, have formed a union and advertise their respective vegetarian restaurants and taverns from time to time by posting up large handbills. The emblem used is a large green wreath, which incloses the advertisement.

KILLED THE MONKEY. — Dr. Lauder Brunton, the eminent London physician, while making some experiments in India a few years ago for the purpose of ascertaining the best method of obtaining anæsthesia in connection with surgical operations, took occasion to notice the influence of tight lacing. Choosing a female monkey for the experiment, he applied a plaster jacket to represent a corset, then tied a bandage around the abdomen to produce the effect of the skirt bands worn by women. It is not surprising that the monkey promptly died. The experiment was repeated a number of times with like effect; now and then a monkey survived, as some women do, without apparent ill effects, doubtless because it happened to possess an uncommonly tough constitution, — in other words, was more than ordinarily hard to kill. If tight lacing is so pernicious for monkeys, can any process of logical reasoning make out that the practice is wholesome or harmless for women?

CORSET WEARING. — It is said that corset wearing is gaining ground among the officers of the British and German armies. Fashionable young English swells have been wearing corsets for the last quarter of a century, but it is comparatively recently that the practice has shown a disposition to extend itself to any considerable degree. Women are wearing corsets less, men more; but fortunately the men who are taking to corset wearing belong to the class with whom society could very well dispense, and so we shall not undertake to inaugurate a reform among male corset wearers, but let the good work go on until the shallow-pated creatures who ape this feminine folly are exterminated.

CARE OF THE EYESIGHT. — Dr. L. Webster Fox has formulated the following rules for the preservation of the vision: —

1. Do not allow light to fall upon the face of a sleeping infant.

2. Do not allow babies to gaze at a bright light.

3. Do not send children to school before the age of ten.

4. Do not allow children to keep their eyes too long on a near object, at any one time.

5. Do not allow them to study much by artificial light.

6. Do not allow them to use books with small type.

7. Do not allow them to read in a railway carriage.

8. Do not allow boys to smoke tobacco, especially cigarettes.

9. Do not necessarily ascribe headaches to indigestion, the eyes may be the exciting cause.

10. Do not allow the itinerant spectacle vendor to prescribe glasses.

SUDDEN drowning is said to be sometimes due to unconsciousness produced by the entrance of water through the opening of a perforated ear drum. Persons who have perforated ear drums should remember this and carefully close their ears with cotton before going into the water, if the head is to be submerged.

AMERICAN DIVORCES NOT LEGAL IN CANADA. — It is a significant fact that at the trial of a bigamy case at Toronto recently, an eminent judge pronounced the opinion that an American divorce is not binding in Canada, and cannot be accepted by the courts as dissolving the marriage tie. The looseness of our divorce laws is doubtless the reason why they are not respected by the local authorities of other countries.

THE HEALING OF A WOUND. — This is one of the phenomena of nature that we do not understand; but we know that tissue grows and develops certain kinds of cells for the purpose of healing. The true skin is never formed again when once destroyed; a sort of cement substance is formed instead. If you have had a large burn, you will notice that there is no perspiration over that portion of the skin; there are no little hair follicles there, and no nerves, — a pin run into that spot will give no pain.

I was once called upon to perform an operation over again. The operation had been done very skillfully, by another surgeon; but there was a slight return of the disease, and it was necessary to make an incision. The incision was made in the same place it had been previously made; the patient watched me while I cut through the scar; it did not hurt him a particle. So there are no nerves in a scar, and this substance that is formed over a wound is not true skin.

Nature can do many other wonderful things in the way of repair of the human body, but she cannot grow in new muscle and skin when once it has been completely destroyed.

DIET FOR GASTRIC NEURASTHENIA.— If we investigate a case of gastric neurasthenia, we shall find a congested condition of the solar plexus and the lumbar ganglia of the sympathetic nerves. Better blood is required. The only way in which to get better blood, is to get better digestion. We cannot get better blood without proper food. Food is as necessary for the formation of blood, as are wood and iron to the construction of a building; and the quality of the tissues will depend upon the quality of the material with which they are supplied. You cannot get good blood and good tissues out of poor material, even by the best possible digestion, any more than a tailor can make a good garment out of poor cloth — any more than a shoemaker can make good shoes out of poor leather. So good food is the best thing for anæmia. Many persons are taking various preparations of iron, and many other medicines which are supposed to make good blood, and all the time they are keeping their systems starved and their blood impoverished by a poor diet.

If you will consult a table of digestibilities, you will find a very important fact; namely, that the articles of food which are the most nourishing are at the same time most digestible; rice, for example, digests in an hour, and its nutritive value is more than three times that of the best beefsteak. Ordinary beefsteak requires 3 hours for digestion; lean beef, fried, 4 hours; salt or "corned" beef, 4 hours and 15 minutes; roast pork, 5¼ hours; salt pork, 4¼ hours; roast mutton, 3¼ hours; veal, 4½ hours. Most persons regard fowls as highly digestible food, but the table says: "Boiled fowls, 4 hours; roast duck, 4½ hours;" quite a contrast to "rice, 1 hour; boiled milk, 2 hours; ripe apples, 2 hours; sweet, mealy apples, 1½ hours; baked potatoes, 2½ hours."

It is the most absurd thing in the world to suppose that medicines will produce blood. Medicines cannot become a part of the body; they simply pass in and out of the body. Blood cannot be made out of anything but food; so that if a person has poor blood, he should take good food, and that which is easy to digest.

FOOD FOR A CHILD.— The best food for a child under a year old, is milk. When he begins to cut his teeth, and the saliva and the pancreatic acid become capable of digesting starch, then the child should be given bread to eat, but not before; after that he should be fed on a greater variety of food. When he reaches two years of age, he may have ripe fruits — grapes, baked apples, very ripe, mellow apples raw — with grains and milk. But a child should not have any meat until he is seventy-five or eighty years old,— and by that time he will not care for it. A philosophical writer has very sagely suggested that if parents would give their children more cow's milk and less cow's meat, they would have much less use for cow's hide.

WHAT CAUSES ASTHMA?— Asthma is a nervous disease, and primarily it is caused by an irritation or excitement of the nervous centers at the base of the brain. An eminent English doctor thinks there is an "asthma center" in the brain. The causes of this nerve irritation are various; one of the most common, however, is bronchial catarrh, producing an irritation and excitement of the nerves, which causes a contraction of the little muscles controlling the small tubes which run into the air-cells of the lungs. Each one of these little tubes has a muscle attached to it, which contracts; after the air gets into the air-cells, there is a contraction of these muscles so that the air cannot get out of the lungs, and the

effort of the patient to get air, is what gives rise to the paroxysms of asthma. Another very common cause is a disordered stomach — where the stomach rises up into the chest; — and when irritating substances are formed, causing a dilated stomach, as well as in numberless other forms of dyspepsia, we have an irritation produced in the nerve-centers of the brain which will cause a contraction or paroxysm of the tubes of the lungs.

An English physician calls asthma "a paroxysm of contraction," or a sort of pulmonary epilepsy; he says the lungs of the patient are "having fits"— convulsions of the lungs — a sort of hysterics of the lungs. It is found, in a majority of cases of asthma however, that the lungs themselves are not diseased and there is no catarrh of the bronchial mucous membrane, but that there is a dilated stomach and liver, and poisonous substances are left in the blood, exciting and stimulating the muscles which control the lungs.

Test for the Purity of Drinking Water. — The following test for the purity of drinking water was given by the Michigan State Board of Health a few years ago: "Fill a perfectly clean two-quart bottle two thirds full of water; dissolve in this a teaspoonful of the cleanest white sugar, cork the bottle and set it away in a warm place for two days. If it remains clear and bright, you need fear no evil; but if it turns milky white, and gives off any offensive gases, beware how you drink the dirty stuff."

This is a very simple test for impure water, and is also a really good test. Water always contains germs, especially water from public water supplies. But germs are not likely to do very much harm unless there are great numbers present. If the water contains a great multitude of germs, that is evidence that there is food for the germs in the water, upon which they may thrive and multiply. It is very important to know whether that is the case. By putting sugar into the water, germs are furnished with a material upon which they can feed, but not upon which they can grow. Germs cannot grow when fed simply with sugar. They require albumen and nitrogenous products in order that they may grow. But when fed upon sugar, they decompose it into carbonic acid gas, or carbon dioxide, as it is called, gas and alcohol, and in thus decomposing the sugar and making it give off this gas, these germs grow. But they grow from the nitrogenous principles which the water contains. This turbidity of the water is caused by great masses of germs, and by this turbidity we know that the water contains multitudes of germs.

Bleaching Superfluous Hair. — Women, especially after middle age, and particularly brunettes, sometimes suffer much mental annoyance from the appearance upon their faces, usually upon the upper lip and chin or upon the sides of the face just in front of the ears, of a few large dark hairs. These may be destroyed by electricity, but the process is tedious and painful. A practical method which has recently been suggested, is to render them less noticeable by bleaching them with peroxide of hydrogen. The method is as follows: Wash the parts thoroughly first with a little soap, then with a saturated solution of borax, and lastly rub on with a camel's hair brush or a small bit of cotton, a concentrated solution of peroxide of hydrogen (Marchand's), which can be bought at any drug-store. An application should be made several times a day, until the hair is thoroughly bleached, and should be renewed from time to time, as may be necessary.

For Frost-bite. — As the cold season has arrived, a few suggestions respecting the best method of treating frost-bite may prove serviceable to some one. If the feet have recently been frosted, relief will be quickly obtained by the following method: On going to bed at night, paint the affected parts with tincture of iodine. Then rub on a mixture of equal parts of vaseline and spirits of camphor, and cover with a soft bandage. In the morning, take a hot and cold foot-bath, dipping the feet for half a minute each, alternately, in hot and cold water.

Injurious Effects of Strong Light upon the Eyes. — A contemporary remarks that electric and gas lights have injured more eyes than were ever harmed by the lack of illuminating agents in past years. Blindness, weak eyes, and near-sightedness are vastly on the increase. All the bad habits of society help to spoil the eyes, but too strong light is doubtless the most mischievous. Moderate your lights, use shades, and give your eyes a rest when they become tired.

The physiological purpose in the application of ice alternately with hot water, in certain treatments, is to intensify the effect of the heat. If heat is applied continuously, there is relaxation of the tissues, but if cold be applied immediately after, the tissues are stimulated and prepared for another application of heat so that the effect will be the same as at first.

Good fruits, baked apples, coarse grains, are the best laxative medicines.

ANSWERS TO CORRESPONDENTS.

CATARRH — ANIMAL FOOD. — E. M., Canada, inquires: "1. Can catarrh be cured by electricity? and how long, in ordinary cases, does it take? 2. Is it possible to abstain from all animal food in a climate varying from 40° F. below zero in winter, to 90° F. above zero in the shade in summer, and still keep in good working order? 3. What kind of food ought a person to eat to be able to do the most work without injury?"

Ans. — 1. In case catarrhal discharge is kept up by morbid growth in the nose, such as polypi or hypertrophies, a cure can sometimes be effected by removing the morbid growths. The time required for the operation is usually very short, occupying not more than ten minutes sometimes, and sometimes even less. The treatment must be continued, sometimes for several weeks.

2. Yes, we derive more heat from starch or starch food and fat, than from an equal quantity of lean meat. In the winter time we need starch food and similar foods to support the vital forces of the body. Flesh food excites the heat-producing processes of the body, but without adequate support, whereas fats, starch, and other heat-producing foods are as essential in maintaining the bodily heat as the coal we put in our stoves and furnaces is essential for producing external heat.

3. A simple dietary of fruits and grains, easily digested vegetables, and a moderate allowance of milk.

FALLING OF THE HAIR. — This correspondent is a man of twenty-eight years, perfectly healthy, but has always been troubled with dandruff, and now his hair is beginning to fall out. He wishes to know: "1. Do I make a mistake in wetting it daily to comb it? 2. Can you recommend any work, written for laymen, on the preservation of the hair?"

Ans. — 1. No; the scalp should be thoroughly shampooed every day, applying cold water, then rubbing vigorously with the ends of the fingers.

2. No.

THE HYGIENE OF TRAVEL. — SANITARY SHOES AND OVERSHOES. — This correspondent asks for information on the above subjects, the former especially in regard to diet, and the latter with reference to the different seasons of the year.

Ans. — Wholesome food can generally be found at first-class hotels. Good Graham bread, plenty of fruit, and simply prepared grains and vegetables, can be obtained at good restaurants as well as hotels. The most sanitary shoes are those made of felt. Overshoes should not be worn except when out-of-doors. The habit of wearing any kind of rubber covering over the feet is injurious.

CRAMPS — TONIC FOR STOMACH — BUTTERMILK. — Mrs. A. R., N. H., wishes to know: "1. What is the cause of cramp?" She writes that she is up two or three times every night with cramp in her feet and legs, and would be glad of advice. "2. What is the best tonic for the stomach after an attack of cholera morbus? 3. Are there any medicinal virtues in fresh buttermilk?"

Ans. — 1. Sudden and violent muscular contractions. Massage, hot and cold baths, electricity, moist bandage, and many other measures are useful in these cases.

2. Rest for several hours, and then simply prepared food.

3. Yes, fresh buttermilk is more easily digested by some persons than milk in other forms. The acid which it contains seems to be, in some cases, an aid to digestion.

BURNING PAINS IN CHEST. — F. M. R., Mass., writes that he suffers from severe burning pains in his chest on walking or indulging in other exercise. Cannot walk fifty yards without stopping, on account of the acute pain brought on by the exertion. His physician has been treating him for heart disease. Would be glad to be told what is the matter and to be advised as to treatment. His appetite is good, and his digestion perfect.

Ans. — It is quite possible that the patient may be suffering from disease of the heart. He must rely upon the information derived from his physician in reference to this point. Pain in the region of the chest is, however, less frequently due to disease of the heart than to other causes. This in itself is not sufficient evidence of disease of the heart.

STRICTURE OF THE PYLORUS — ORIFICIAL SURGERY. — H. M. S., Iowa, asks: "1. What are the cause, symptoms, and cure (if any) for stoppage of the outlet of the stomach? 2. What do you think of the dilatation of the rectum, practiced by many physicians for digestion and throat troubles? 3. Would the treatment be good for a person who is troubled

with throat inflammation from overuse of the voice?"

Ans.— 1. Within recent years an operation has been devised, which is sometimes effective in relieving these cases previously considered incurable; the operation consists in opening the abdominal cavity, making a slit in the wall of the stomach, introducing the finger, and stretching the pylorus, thus overcoming the stricture.

2. The treatment is for the most part highly absurd, and more effective in emptying the patient's purse than in improving the state of his stomach.

3. We cannot imagine that the treatment referred to would be of any use whatever to such a patient.

BLACKHEADS — CARE OF THE HANDS, ETC.— A nameless subscriber inquires: "1. What is a cure for blackheads? 2. How ought I to care for my hands? Glycerine makes them harsh and red. 3. What would prevent falling of the hair?"

Ans.— 1. Accumulation of hardened fat in the sebaceous glands.

2. The hands must be kept perfectly clean, and at night rubbed with a little cold cream or vaseline, The principal cause of irritation of the hands, chapping, etc., is dirt.

3. The falling of the hair cannot always be prevented. Rubbing the scalp with cold water two or three times a day, is one of the best remedies.

DILATED STOMACH.— R. M. C., Canada, asks, "What is meant by a dilated stomach? Please give symptoms, cause, and cure."

Ans.— I have not space here to present the whole subject of dilatation of the stomach, but will simply say that a dilated stomach is one which has become too large from the stretching of its walls. Migraine, megrim or nervous headache, sick headache, heaviness after meals, catarrh of the stomach, sour stomach,— these are some of the symptoms which generally accompany dilatation of the stomach.

BRAIN AND NERVE FOOD.— F. A. S., N. J., asks: "1. What is the best brain and nerve food? 2. Is there any journal treating on this subject?"

Ans.— 1. There is no food which is especially intended for the brain and nerves. Wholesome food is the best food for brain and nerves.

2. Yes, GOOD HEALTH.

SHOULDER BRACES — WEAK VOICE.— J. P. A., Canada, inquires: "1. Would you recommend, under any circumstances, the use of shoulder braces? 2. What treatment would you advise to strengthen a weak voice? I can speak distinctly and with ease for a time, but after a time my voice becomes husky and speaking causes irritation of the throat."

Ans.— 1. No, except in cases of deformity so great that the spine is permanently curved.

2. Voice culture is the only means of strengthening the voice. The huskiness and irritation of the throat indicate local disease, which should have attention.

NUMBNESS AND PRICKLING OF THE FINGERS.— M. J., a seamstress, writes that her fingers, on a cool morning in summer, always feel numb and prickle on the ends, making it difficult for her to hold a needle to sew. She has poor health, and is cold when others think the weather is only agreeable. Her age is twenty-eight years. The numbness and prickling of the fingers is very much worse than it was six months ago.

Ans.— This case should be thoroughly examined by a competent physician.

INFLUENCE OF MENTAL STATES UPON THE HEALTH. — J. R. D. writes: "I have the idea that mental states have a very important bearing upon the health. Is not this true? Most persons blame ailments of the body for their mental states; and yet we have all seen persons of poor health, hardly ever without pain, that constantly live in the sunshine. Would they not be much worse physically if they were not cheerful? Are not many physical troubles largely due to an irritable disposition, want of cheerfulness, and other mental states? There is no doubt that great worry will retard digestion. Why should not people be taught that it is as injurious to indulge in wrong thoughts and feelings as it is to indulge in unwholesome food?"

Ans.— We quite agree with the ideas of the writer.

BROMIDE OF POTASSIUM.— R. H. R. inquires, "When bromide of potassium is taken for sleeplessness, what is the dose?"

Ans.— Bromide of potash is not a remedy which should be employed in household practice. Its use to produce heat is decidedly objectionable and improper, only in very exceptional cases.

TRUSSES.— L. H. S. wishes to know our opinion regarding the "Finger Truss" for the relief and cure of hernia.

Ans.— Most cases of hernia may be relieved by wearing a suitable truss. Cases of hernia are occasionally cured by the prolonged wearing of a well-fitted truss, but the cures effected in this way are very exceptional, except in children or very young persons.

RELIEF DEPARTMENT.

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

1. Young orphan children.
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.

The following list contains the names and addresses of persons who have kindly consented to act as agents for us in this work, and who have been duly authorized to do so. Facts communicated to any of our local agents in person will be duly forwarded to us.

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

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

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

A SEVEN-YEAR-OLD (No. 129).— A little boy seven years old, in California, has lost his mother, and the father has given him to some aged people who do not feel able to bring him up right. He is of German parentage, with light hair and good health. Will not some one make a home for him?

TWO BROTHERS (Nos. 131 and 132), from Michigan, are in need of a home. One is five and the other ten years of age. Their mother died some two years ago, and the father is not able to care for them.

TWO MORE BOYS (Nos. 133 and 134) are in need of a home. These also live in Michigan. They are three and five years of age, have good health, with brown hair and eyes. Here is a good opportunity for doing missionary work in bringing up these children to be a blessing to the world. Who will undertake the task?

SAD FACES look out at us from the photograph that has been sent of two little girls (Nos. 139 and 140) about eight and nine years old, living in Michigan, who are just about to be turned away from home. How full the world is of trouble and sorrow! Cannot some one help to lift the sadness from these little faces?

MOTHERLESS.— Another little boy and girl (Nos. 143 and 144), in Kansas, have been left motherless, and the father's health is so poor that he is anxious to find homes for his children before he is called away from them. They are good children, well-appearing, and have good health. The little boy is nine and his sister six years old.

A LITTLE BROTHER AND HIS SISTER.— Here are two little ones from Florida (Nos. 158 and 161) who are in need of a home or homes. The girl is two years and the boy six years old. They both have brown hair and eyes, and are blessed with good health.

WHO WILL HELP? — Here are two boys (Nos. 163 and 164) from North Carolina, who want homes. The father and mother are both dead. They are bright, intelligent boys, and, as the application says, would make somebody's home brighter. They are eight and eleven years old respectively.

No. 165 is a strong, healthy boy, nine years of age, who needs a home. He is in Michigan.

ANOTHER BOY (No. 168) from Michigan, ten years old, is in sore need of a home. He has lived on a farm, and is rather small for his age, though in good health.

TWO BROTHERS:— From Pennsylvania comes another call for homes for two boys (Nos. 169 and 170), three and eight years old. They both have good health, the younger one has dark hair and eyes, and dark complexion; the older one, dark hair and light brown eyes. They have had good care till their mother died, and have not been allowed to run on the street, so have good characters to recommend them.

A BROTHER AND SISTER.— These little ones, aged nine and eleven (Nos. 171 and 172) have been five years without a mother, but have lived with their grandparents. The father is a canvasser. They have blue eyes and good health; the boy's hair is dark brown and the girl's light. They live in Iowa.

A BOY eleven years old (No. 174), of German parentage, is in need of a home. He has dark brown eyes and hair, is four feet high, and a good tempered, obedient boy. He lives in Illinois.

Two little boys in Pennsylvania (Nos. 175 and 176), one aged four and the other two years, have been left destitute. They are stout, well-built little fellows, bright and intelligent, and have had very good training. They have never been allowed to run upon the street, and are "real good, attractive boys."

Two little waifs, eight and ten years of age (Nos. 177 and 178), are left without a home or kind care from any one. The only love they know is that which they each have for the other. They are in Minnesota. They have blue eyes, light hair, and excellent health, and seem to be very affectionate.

No. 180 is a little boy eight years old, living in Kansas. He has been abandoned by both father and mother. He has good health, and is a bright, lively boy. He needs careful training, but Christian kindness and love will doubtless yield a rich harvest.

A MICHIGAN boy (No. 181), seven years old, needs a home. He has blue eyes, light hair, and good health, and has been taught good manners.

A LITTLE BROTHER AND SISTER.— (Nos. 186 and 187) are two more homeless little ones, who have lost both parents, and have nowhere to go. They also have dark eyes and hair, good health, and are prepossessing inappearance. They are 9 and 11 years old and live in Michigan.

A SAD CASE.— A little boy in Pennsylvania, only ten years old (No. 188) has been left without any one to care for him, by the death of both father and mother. He was an adopted child, but the foster parents have done a noble thing for him, for the letter says he has been well cared for. He is industrious and quick to learn, and has no bad habits. He is an American boy, light hair, blue eyes, and good health.

A BOY WANTED.— A gentleman living in Oregon wants to take a boy who is large enough to help him on the farm. He would like a boy about fourteen years old.

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

OUR dear little Harry (No. 138), who has made the Home so bright with his baby smiles, has found a mother, and is now waiting only for some convenient way of being sent to her. We shall sadly miss him, but our loss is some one else's gain, and we must make room for others to follow, or the good we might do would be very limited.

No. 167 has found a home in Wisconsin, and Nos. 145 and 162 have been placed in homes elsewhere. Thus the little ones are being cared for.

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

CLOTHING FOR THE POOR.

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

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

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

LITERARY NOTICES.

THE November number of the *Pansy* enters upon a new year, and announces many new and important features, a few of which we mention. There will be each month, a special department devoted to the work of the Christian Endeavor Society, "Our Christian Endeavor Bulletin." There will be the latest news of the Christian Endeavor movement all over the world, and the most helpful and progressive papers by Christian Endeavor specialists that can be procured. The other departments of the magazine are to be broadened and enlarged. In the department of "Athletics" and "Indoor Games in the Family Circle," Mr. A. Alonzo Stagg, the famous Yale pitcher, will contribute an early paper, to be followed by experts in physical development. Pansy (Mrs. G. R. Alden) has a new and fascinating serial, "Vira's Motto," beautifully illustrated. Margaret Sidney (Mrs. D. Lothrop), according to request, will contribute the second series of her "Golden Discovery Papers." Elizabeth Abbott, author of the "American Literature Papers," which attracted so much attention last year, will furnish "Greek Literature Papers."

Ten cents a number; $1 a year. D. Lothrop Company, publishers, Boston.

A LITTLE volume called "The Complete Vest-Pocket Library" by E. E. Miles, has come to our table for notice. Upon examination we find it a handy compendium of useful information adapted to the needs of all studious persons, whether in the professional, literary, or business line. Its compilation reveals a wide range of subjects, selected with unusual care and judgment, while it contains a much larger amount of matter than is commonly to be found in works of this class. It contains 192 pages, and comprises a Pronouncing Dictionary of 45,800 words, a Pronouncing Gazetteer of the World, a Digest of Parliamentary Practice, a Rapid Calculator, a Compend of Business and Social Forms, and a Treatise on Letter Writing and Literary Guide; to which is added a supplementary device consisting of a Calendar, Stamp Case, and Perpetual Memorandum. In shape, the little volume is indeed well suited to the masculine vest pocket, but in the interest of the hundreds of appreciative women who will, without doubt, purchase it, we would suggest the addition to its cover of some device for keeping the book closed while in an ordinary pocket or handbag. Price, in cloth, red edges, 25 cents; leather, lemon edges, gold stamp, 50 cents; extra quality, gold edges, gold stamp, thumb index, 60 cents. The Good Health Pub. Co. will receive orders for the book. Young persons and others who may wish to canvass for it, should address the author at 185 Dearborn St., Chicago, Ill.

THE holidays are coming, and thinking parents and teachers are seriously aware that the gifts for the children that come at this time are not usually all they should be, especially the books. The bulk of all so-called child literature serves as a blanket to cover and chill the faculties, and often worse than that,—plants a craving for sensationalism which is insatiable, and which the usual author and publisher are only too glad to foster if parents are blind enough to help them. A pure, sweet-favored set of children's books ought to be in every growing household. They would cost no more than many of our meaningless decorations. For practical, wholesome advice from this point of view, inquire and send ten one-cent stamps to the Kindergarten Literature Bureau at 1207 Woman's Temple, Chicago, Ill., and valuable suggestions will be mailed to any one earnestly inquiring.

THE *Philanthropist*, a monthly paper published in New York City, and edited by Aaron M. Powell and Mrs. Anna Rice Powell, has been often and favorably noticed in these columns. And, indeed, in its crusade against vice and immorality, the press and all good citizens everywhere should feel it a duty to aid such a journal in any and every way in their power. GOOD HEALTH, always thoroughly in sympathy with any effort to better the world, most cordially wishes the *Philanthropist* godspeed in its good work. Long may the journal live and flourish, say we, and "may its tribe increase." Subscription price, 50 cents per year. Discount on three copies, and over. Friends of the cause should place copies where they would do most good. Address, The *Philanthropist*, P. O. Box 2554, New York City.

THE Cassell Publishing Company was sold at auction on Friday, Oct. 27th, the purchasers being The Cassel Publishing Co. The new concern consists of some of the stockholders of the old company, with others. Mr. W. L. Mershon, formerly of the Mershon Press, Rahway, N. J., becomes President and Manager, Mr. Frank Seaman, Vice-President, Mr. E. A. Archer, Treasurer, and Mr. John T. Ryan, Secretary and Associate Manager. The Company will continue to be the sole agents of Cassell & Co. (Ltd.), of London.

PUBLISHERS' DEPARTMENT.

SANITARIUM BOARDING HOUSE AT BOULDER, COLORADO.—At the request of numerous friends in Colorado, and to meet a want which has long been appreciated, and which they have many times been called upon to supply, the managers of the Battle Creek Sanitarium have undertaken to establish in connection with the friends of the enterprise at Boulder, Colorado, a hygienic Boarding House where invalids and others may receive wholesome food and hygienic care and treatment. No physician is connected with the place at present, but it seems quite probable that the enterprise may ultimately develop into a small sanitarium. The institution is at present under the immediate supervision of Louis Kuester and his wife, who have had long training and experience at the Sanitarium at Battle Creek, and are well prepared to give invalids first class care in everything required in the way of treatment, baths, electricity, massage, Swedish movements, etc. Appliances are supplied for the application of the various medicaments useful in the treatment of lung disease. Many invalids gain little from residence in Colorado and other localities which are sought for their climatic advantages, in consequence of a lack of the proper hygienic care. In the Sanitarium Boarding House everything is supplied that an invalid could desire in the way of wholesome food daintily prepared and served, and skilled nursing.

The Boarding House is beautifully located, surrounded by delightful scenery, and altogether the site is most salubrious and desirable. We have sent many consumptives, in some of whom the disease was far advanced, to this particular locality, and with the best results. It is, in fact, the great success which has attended residence in this locality for a large number of patients that has given rise to the interest which has finally culminated in the organization of this enterprise.

The rates of the institution are very reasonable. A bus running between the Boarding House and the depot meets every train; fare, five cents. Hacks also meet every train; fare, twenty-five cents. Any further information desired may be obtained by addressing the Sanitarium, Battle Creek, Mich.; or the Sanitarium Boarding House, Boulder, Colo.

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THE Institute for the Training of the Organizers of Christian Help Bands is in progress at the Sanitarium at the present time, and those in attendance show a very great interest in the daily exercises, which occupy from four to six hours each day. The following is a partial list of the subjects which are being thoroughly canvassed in the Institute: Sanitary science, domestic economy, kitchen-garden, Sloyd, cooking, dressmaking, dress reform, physical culture, practical hydrotherapy, nursing, diseases and their treatment, accidents and emergencies, gospel work, district work, mothers' meetings, children's meetings, organizing Christian Help Bands. Each subject is presented by one or more persons whose experience has especially qualified them for giving instruction in that special line, and then the subject is further developed by a free discussion. There are about forty persons in attendance at the Institute, all of whom have had a thorough training and considerable experience in the profession of nursing. It is expected that at the close of the Institute, which will occur about the middle of December, quite a proportion of those attending it will engage in public labor in the organization of Christian Help Bands in various localities.

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THE MEDICAL MISSION established in Chicago by the Sanitarium a few months ago, is prospering greatly. From 200 to 250 persons receive attention daily. It is found possible to furnish a bowl of soup, with sufficient bread, for the small sum of one cent, and many scores of persons daily avail themselves of this opportunity for obtaining wholesome and nutritious food at

a minimum cost. Measures are being taken to enlarge the bill of fare. It is proposed to supply milk at a penny a glass, and various other articles which can be furnished in portions for one cent each.

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DR. KATE BUSHNELL, who has been spending several years abroad as a round-the-world missionary of the W. C. T. U. work, recently returned to this country, and is now about to return to England to complete her work in connection with the investigation of the condition of the East Indian women. Her brilliant exposure of the illegal practices and abuses which have been in vogue in connection with the military camps, created so great a popular disturbance as to command the attention of Parliament, and the appointment of a commission for investigation. Dr. Bushnell was called before this commission, and had an opportunity to testify to the facts which her inquiry had elicited. Dr. Bushnell is one of the heroines of the age, and the noble and daring work which she has undertaken in the interest of Purity Reform, will be the means of rescuing thousands from a life worse than death, and will entitle her to the everlasting gratitude of all well-wishers of humanity.

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MANY of our old Sanitarium patients who are numbered among our subscribers, will be glad to note that our friend, Mr. Aldrich, who has spent fourteen consecutive winters at the Sanitarium, is still with us, and although long past eighty years of age, is still hale and hearty, and looks more than twenty years younger than he really is.

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MRS. LUCRETIA WILLARD TREAT, Supt. of the Grand Rapids Kindergarten Association, continues her course of excellent and instructive lectures on Child Culture before the Mothers' Class and the Sanitarium patients. She has delivered several lectures the past month, and is always warmly welcomed. On the occasion of her last visit she was accompanied by her capable secretary, Miss Clara Wheeler.

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MR. WILLIAM ARNOLD, who is engaged in introducing health literature in Jamaica, has met with excellent success. For the last four months his sales have averaged $1000 per month, which represents several hundred copies of the bound volumes which he is introducing.

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HALLOWEEN was duly celebrated at the Sanitarium by a particularly fine literary and musical entertainment gotten up by the guests. The music was fine, especially the numbers given by Mrs. C. H. Dummer of Chicago and Miss Agnes Stewart of South America. Miss Myra Tubbs, of Kirkwood, Ill., Miss Irvine, of Detroit City, Minn., Victor L. Greenwood, of Chicago, and Mr. Hurtt, of Bloomington, Ill., each favored the audience with pleasing recitations. A "Dyspeptic's Diary," founded on Sanitarium experience, capped the climax of humor. Altogether, the affair was voted a very happy one.

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THE Sanitarium exhibition at the World's Fair attracted no small attention. The unique character of the exhibit, and its completeness, placed it far in advance of any similar exhibit on the ground. A considerable portion of the exhibit has been shipped to the Pacific Coast, to be used by the St. Helena Institution in presenting their work at the Midwinter Fair in California, and promises to be a great success.

MESSRS. WAITE AND BARTLETT, of New York, are constructing for the Sanitarium the largest electro-static machine ever made.

* *
*

WE wish to call special attention to some announcements which appear in the advertising columns of this journal, which we think are worthy of the consideration of our readers:—

Messrs. Sharpe & Smith, the well-known surgical instrument makers in Chicago, are prepared to furnish first-class goods in their line, as we know from many years' experience in dealing with them. This is a most reliable firm, and deals in nothing except first-class goods.

The Drevet Manufacturing Co. are producing a very superior article of Hydrogen Peroxide, an unequaled deodorant and disinfectant. A bottle of this invaluable preparation ought to be in every household.

* *
*

TO OLD SUBSCRIBERS.—At this season, many subscriptions to the journal are expiring, and subscriptions for the coming year are coming due. Those who have carefully perused the pages of GOOD HEALTH during the last year, must be very ready to concede that the subscription price charged is very small in comparison with the value of the matter contained in the journal, a great proportion of which is original. Now is the time for new subscriptions to be sent in. We hope our friends will renew promptly, so as to save our clerks the necessity of sending out a special reminder that the time for renewal has arrived. Renewals will be received at $1.00.

* *
*

EXCURSIONS TO CALIFORNIA.—On account of the San Francisco Mid-winter Fair, the Chicago, Milwaukee & St. Paul Railway Company will sell excursion tickets to San Francisco, St. Jose, Colton, Los Angeles, and San Diego, Cal., and Portland, Ore., at reduced rates, good until April 1, 1894. For full particulars call on any coupon ticket agent or address Harry Mercer, Michigan Pass. Agent, 82 Griswold St., Detroit, Mich.

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A NEW through sleeping car line from Chicago to Staiet lvea the Chicago, Milwaukee & St. Paul and Great Northern Railways, has been established, and first-class sleeping cars will hereafter run daily from Chicago at 10.30 P. M., arriving at Seattle 11.30 P. M., fourth day. This is undoubtedly the best route to reach the North Pacific Coast.

For time tables, maps, and other information apply to the nearest ticket agent, or address HARRY MERCER, Michigan Pass. Agent, C., M. & St. P. R'y, 82 Griswold St., Detroit, Mich.

* *
*

WHERE TO LOCATE NEW FACTORIES.

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

GOOD HEALTH

EDITED BY J. H. KELLOGG, M. D.

VOLUME XXVIII

GOOD HEALTH PUBLISHING CO.,
LONDON, ENGLAND; NEW YORK CITY; BATTLE CREEK, MICHIGAN.
1893

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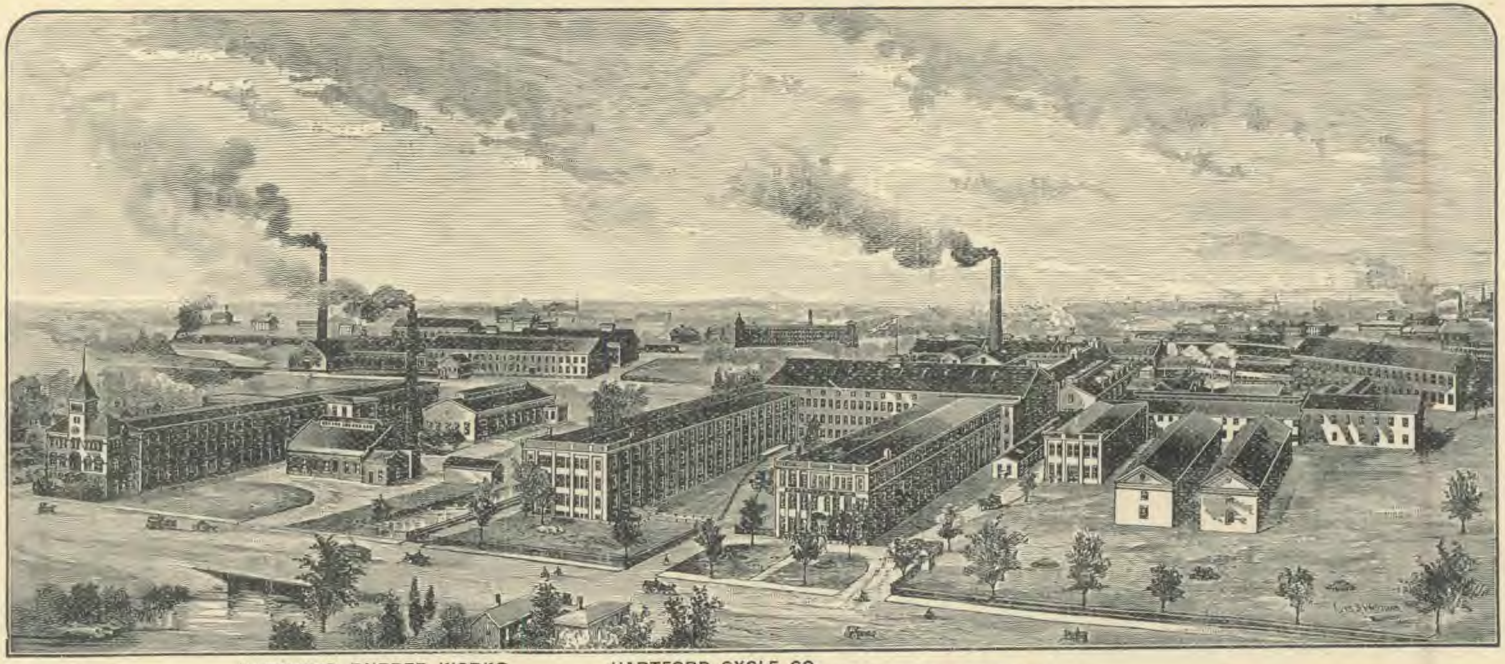

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COLUMBIA BICYCLE FACTORY.

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Chicago, New York.

The Columbia Bicycle Factory. The oldest in the United States, and the largest and most expensive factory in the world devoted exclusively to the manufacture of bicycles.

The Columbia Tube Mill. Specially equipped for manufacture of finest steel tubing.

The Hartford Rubber Works. Makes the famous Columbia tires on which the phenomenal record-breaking of last season was accomplished.

PRODUCE

The nearest approach to a perfect bicycle,
The favorite on the road,
The leader in the race,

THE COLUMBIA BICYCLE.

Known as the fastest (world's records from one quarter to five miles), the most beautiful, the most perfectly constructed, and most fully guaranteed.

CHICAGO & GRAND TRUNK R. R.

Time Table, in Effect Nov. 19, 1893.

GOING EAST. Read Down.					STATIONS.	GOING WEST. Read up.				
10 Mail Ex.	4 L'v'd Ex.	6 Atl. Ex.	8 Erie Lim.	2 Pt. H Pass		1 Day Ex.	9 P'tic Ex.	7 Erie L'v'd	11 Mail Ex.	3 R'd L'v'd
a m	p m	p m	a m			p m	a m	p m	p m	pm
8.40	2.30	8.15	11.25	.....	....D. Chicago .A.....	4.50	8.00	10.30	7.00	9.10
11.10	4.27	10.30	1.20	.....	.....Valparaiso.....	2.45	5.45	8.30	4.27	7.10
p m										
12.45	5.47	12.00	2.35	.....	.....South Bend.....	1.20	4.10	7.10	2.50	5.47
1.29	6.32	1..45	3.07	.....	.....Cassopolis	12.40	3.28	6.32	2.06	5.14
2.21	.....	†1.33	.....	.....	.....Schoolcraft.....	†12.02	.....	.....	1.19	.....
2.33	7.17	1.48	.....	.....	.....Vicksburg	11.53	2.37	.....	1.08	.....
				a m	D	11.15	1.50	5.18	12.25	3.55
3.40	8.00	2.40	4.30	7.00	.....Battle Creek.....	11.10	1.30	4.15	12.10	3.50
4.33	8.42	3.25	5.11	7.47	.....Charlotte.....	10.29	12.53	4.33	11.15	3.07
5.10	9.10	4.00	5.40	8.2	.....Lansing.....	10.02	12.20	4.03	10.40	2.40
6.50	10.00	5.03	6.35	9.30	.....Durand.....	9.05	11.18	3.20	9.35	1.55
7.30	10.30	5.40	7.05	10.05	.....Flint	8.35	10.47	2.53	8.35	1.28
8.15	11.00	6.15	7.35	10.43	.....Lapeer	8.02	10.07	2.25	7.49	1.00
8.42	a m	†6.35	.....	11.06	..... Imlay City	.....	.....	.....	7.28	.....
9.56	12.10	7.30	8.46	12.05	.....Pt. H'r'n Tun.....	6.50	8.46	1 20	6.25	11.55
			p m			a m	p m	p m	a m	a m
9.25	.....	7.40	9.25	11.50	.....Detroit.....	6.40	.....	.....	.....	.....
p m	a m	p m		p m			a m	a m		
.....	8.30	7.40		8.10	.....Toronto.....	.....	1.00	7.40	.....	.....
	p m	a m		a m		a m	a m	p m		
.....	7.50	7.00	.....	7.25	..... Montreal.....	9.30	9.30	10.30	.....	.....
	a m	a m		p m		a m	a m	a m		
.....	8.15	9.30	.....	7.15	..... Boston	9.00	7.00	11.30	.....	.....
	a m	p m	a m	p m		a m		a m		a m
.....	7.25	4.13	3.00	7.30	.....Niag'ra Falls.....	1.45	.....	8.40	.....	7.30
	a m	p m		p m		a m	p m	a m		
.....	8.30	5.35	4.15	9.00	..... Buffalo	12.20	1.00	6.20	.....	.....
	p m	a m	p m	a m		a m	p m	p m		p m
.....	9.40	7.52	4.52	10.10	.....New York.....	9.15	8.30	6.30	.....	6.00
	a m	a m	p m	m			p m			
.....	7.00	10.00	9.25	12.00	..... Boston	.....	7.30	.....	.....	.....

Trains No. 1, 3 4, 5, 6, 7, 8, 9, run daily; Nos. 10, 11, 23, daily except Sunday.

All meals will be served on through trains in Chicago and Grand Trunk dining cars.

No. 23, Battle Creek Passenger, leaves Pt. Huron Tun. at 3:40 p. m., arrives at Battle Creek 9:35 p. m.

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. B. Mc INTYRE,
Asst. Supt., Battle Creek.

A. S. PARKER,
Pass. Agent, Battle Creek.

MICHIGAN CENTRAL

"The Niagara Falls Route."

Corrected Nov. 7, 1893.

EAST.	† Day Express.	*N.Shore Limited.	*N. Y. Express.	†Mail.	*Atl'ntic Express.	*Night Express.
STATIONS.						
Chicago.....	am 9.00	am 11.30	pm 3.10	am 7.05	pm 9.10	pm 10.00
Michigan City.	11.00	pm 1.13	4.56	9.10	11.15	11.50
Niles	pm 12.25	2.08	5.55	10.35	am 12.30	am 1.10
Kalamazoo	2.00	3.18	7.03	pm 12.35	1.53	2.42
Battle Creek...	2.40	4.00	7.38	1.20	2.45	3.22
Jackson.....	4.30	5.08	8.52	3.10	4.25	4.45
Ann Arbor.....	5.30	6.08	9.45	4.27	5.33	6.01
Detroit.....	6.45	7.15	10.45	6.00	6.50	7.45
Buffalo.....		am 2.05	am 6.25		pm 2.45	pm 5.00
Rochester.....		4.45	9.55		5.50	8.20
Syracuse		6.45	pm 12.15		8.30	10.20
New York.....		pm 2.40	8.50		am 6.30	am 7.00
Boston		4.45	11.45		10.50	10.50
WEST.	† Day Express.	*N.Shore Limited.	*Chicago Express.	* Night Express.	*Pacific Express.	†Mail.
STATIONS.						
Boston	am 8.30	pm 2.00	pm 4.20		pm 7.15	
New York.....	10.30	4.30	6.00		9.15	
Syracuse	pm 7.30	11.35	am 2.10		am 7.20	
Rochester.....	9.35	am 1.25	4.10		9.55	
Buffalo	10.45	2.20	5.30		pm 11.50	
Detroit.....	am 7.15	8.45	pm 1.00	pm 7.35	9.00	am 8.15
Ann Arbor.....	8.19	9.45	1.55	8.50	10.20	9.26
Jackson.....	9.30	10.48	2.55	10.13	11.45	11.40
Battle Creek...	10.45	12.00	4.00	11.55	am 1.12	pm 1.20
Kalamazoo	11.26	pm 12.38	4.35	am 1.00	1.53	2.08
Niles.....	pm 1.10	1.48	6.00	3.20	3.52	4.00
Michigan City.	2.18	2.45	7.05	4.40	5.22	5.25
Chicago.....	4.10	4.30	9.00	7.05	7.15	7.35

*Daily. †Daily except Sunday.

New York and Chicago limited trains go east at 10.25 p. m., and west at 3.17 a. m. daily, and require special tickets and Wagner palace car tickets.

Accommodation train goes east at 7.50 a. m. except Sunday.
" " west at 9.00 p. m. "

Trains on Battle Creek Division depart at 7.55 a. m. and 4.35 p. m., and arrive at 12.40 p. m. and 6.45 p. m. daily except Sunday.

O. W. RUGGLES,
General Pass. & Ticket Agent, Chicago.

GEO. J. SADLER,
Ticket Agent, Battle Creek.

HEALTH FOODS

IN the effort tc meet the necessities of a large Sanitarium, with its great variety of patients, we have produced a number of food preparations adapted to different diseased conditions, the merits of which are such as to secure for them a very large and increasing sale, not only to persons belonging to the invalid class, but to those who wish by "good living" to avoid disease. Unsuccessful attempts have been made to imitate some of these foods under various names. None are genuine unless bearing our stamp or made under our authority. The following are our leading preparations:—

	Cts. per lb.		Cts. per lb.		Cts. per lb.
Oatmeal Biscuit	12	White Crackers	10	Wheat Granola (bulk 10)	12
Medium Oatmeal Crackers	10	Whole-Wheat Wafers	10	Avenola (bulk 10)	12
Plain Oatmeal Crackers	10	Gluten Wafers	30	Granola (bulk 10)	12
No. 1 Graham Crackers	10	Rye Wafers	12	Gluten Food No. 1	50
No. 2 Graham Crackers	10	Fruit Crackers	20	Gluten Food No. 2	20
Plain Graham Crackers, Dyspeptic	10	Carbon Crackers	15	Infant's Food	56

SAMPLE PACKAGES CONTAINING SPECIMENS OF EACH OF OUR FOODS SENT POSTPAID FOR 50 CENTS. SELECTED SAMPLES, 25 CENTS.

All grain preparations can be supplied in large or small lots, as we keep a fresh supply constantly on hand of goods which are largely made expressly for us, of a superior quality of grain. Address—

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BATTLE CREEK MICH.

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Trusses,

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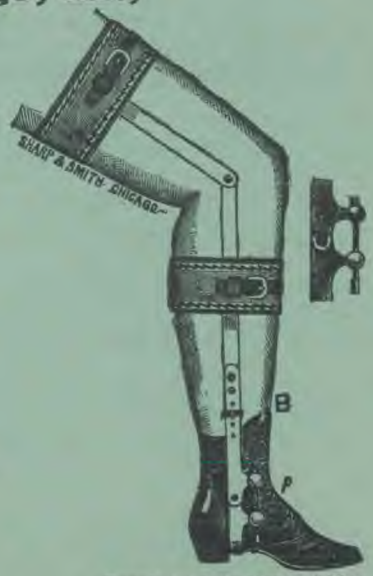
Family Syringes,



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Gunn's Apparatus for Club Feet.

Surgical and Veterinary Instruments.

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SPECIAL ADVANTAGES:

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Unequaled Ventilation, perfect Sewerage.
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