

FEBRUARY, 1891.

GOOD



HEALTH

CONDUCTED  
BY

J. H. KELLOGG M.D.

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GENERAL ARTICLES . . . . .	33-42
International Health Studies: 22. The Fiji Islands ( <i>Illustrated</i> ), by FELIX L. OSWALD, M. D.—Diet in Relation to Health and Longevity—The Ear, the Eye, and the Nose: 2. The Eye: Its Structure and Hygiene, by A DOCTOR—A Finnish Bath—Coughing in Church—The Origin of Diphtheria—Japanese Health Customs—Church Ventilation—A Note to be Met ( <i>Poetry</i> ).	
HOME GYMNASIUM . . . . .	43-47
Is the Race Deteriorating Physically?—Health, Grace, and Beauty: Second Paper ( <i>Illustrated</i> ).	
DRESS . . . . .	48, 49
The Injurious Effects of Waist Constriction ( <i>Illustrated</i> ) by J. H. KELLOGG, M. D. — Dress Reformers.	
SOCIAL PURITY . . . . .	50, 51
Relation of Diet to Purity, by J. H. KELLOGG, M. D. — Lost Women.	
DETECTIVE BUREAU . . . . .	52, 53
Danger in Cheap Tinware—Day's Kidney Pad—Orange Blossom—Papine—Chloride of Gold Opium Cure—One of Dr. Hall's Victims Speaks—Poisonous Baking-Powders.	
EDITORIAL . . . . .	54-57
Food Reform Fanatics—Alcohol and Insanity—Tobacco Hysteria—The Nicotine Nuisance—Work of the Microbes—An Ingenious Device—Men Ten Feet High—Consumption Germs—An Error about Oysters—Narcotics among English Women—Self-Poisoning—Gladstone not a Smoker—Gum Chewing—Christian Science as a Cancer-Cure.	
A DOCTOR'S CHATS WITH HIS PATIENTS . . . . .	58-61
The Beef-Tea Delusion—Germs and Ventilation—Ointment for Chapped Hands—Poison Ivy and Sumach—Sugar in the Body—Eating Air—Koch's Remedy for Consumption—Hot-Water Drinking in Consumption—Mouth-Breathing—The Size of a Infant's Stomach—Remedy for Blackheads, Pimples, Etc.—Nervous Headache—ANSWERS TO CORRESPONDENTS: Use of Pancrobin—Oil of Tar—Gum—Garget in Cows—Effects of La Grippe—Loisette's Memory System.	
SCIENCE IN THE HOUSEHOLD . . . . .	62, 63
The Care of Table Linen—Seasonable Recipes—Cheerful Kitchens.	
LITERARY NOTICES . . . . .	64

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DR. FELIX L.

OSWALD,

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J. H. KELLOGG, M. D.

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**Household Science.** In this department Mrs. Kellogg will continue to give to the readers of GOOD HEALTH the invaluable results of years of work in her experimental kitchen, and experience gained in the management of the cuisine of the largest Sanitarium in the world, and the instruction of classes in the Sanitarium School of Domestic Economy. Other writers will also contribute to this department.



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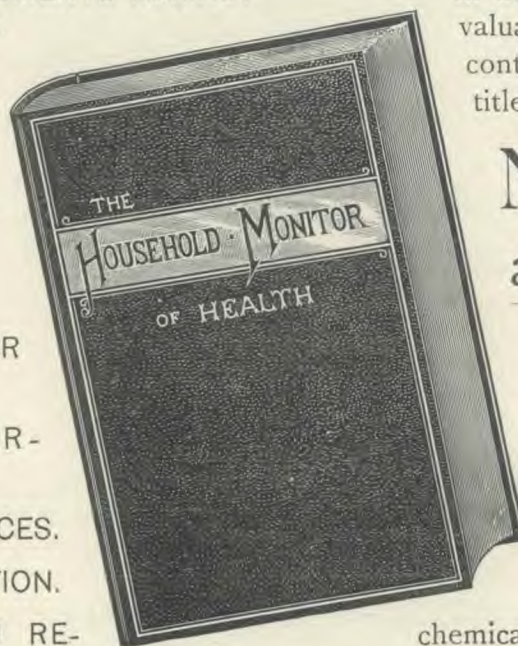
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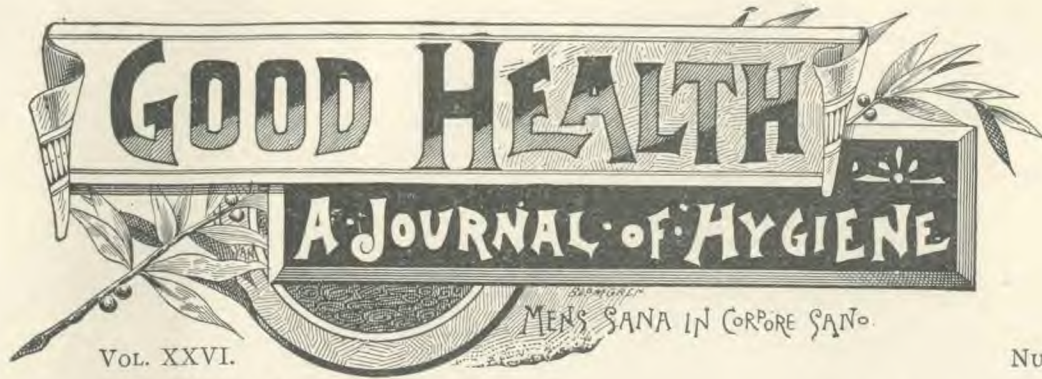
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### INTERNATIONAL HEALTH STUDIES.

BY FELIX L. OSWALD, M. D.

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

#### 22.—The Fiji Islands.

"YOURS is a land of contrasts," Madam de Stael once told a Grecian officer. "Your peasants have always impressed me as being the noblest inhabitants of Eastern Europe, and your bandits the most depraved."

"A visit to our modern Arcadia, I am afraid, might tempt you to reverse your estimate," said the frank soldier. "We have few peasants that would not like to be robbers if they were not afraid to run the risk. It is not that our rustics are more virtuous, but our bandits are pluckier."

An exactly similar mistake has caused many philanthropists to class the cannibals of the South Sea Islands as the most debased tribes of the human race. The strange fact seems to be that the most inveterate of those man-eaters, the New Zealanders and the Fiji Islanders, stand morally and physically as high above some of their neighbors as a chivalrous Arab stands above a Soudan nigger. The inhabitants of the Australian mainland and of the Marquesas Archipelago, of New Caledonia and Tahiti, are all afflicted with anthropophagous temptations, but lack the pluck to gratify their appetites. There are many viands served in Paris restaurants which would be loathed by a Fiji warrior, who would think it mere affectation to refuse a dish of human spare-ribs; and before we ascribe that preference to total depravity, we would do well to reflect on the following conversation of Sir William Erskine with an intelligent Hindoo schoolmaster: "You are a vegetarian yourself," said the Hindoo, "and you will par-

don me for asking you a question that has been on my mind for a good many years. There is no doubt that your countrymen are the bravest, the proudest, and the most learned inhabitants of this earth, as they are surely also the wealthiest and most powerful. How is it possible that such people could fall into a bestial aberration of devouring the flesh of their fellow-creatures—of killing gentle cows and helpless lambs for their daily food, and even fattening on the carcasses of such loathsome brutes as hogs? How can they help preferring the abundance of delicious vegetable food which their wealth places at their command in a country like this? though the greatest puzzle of all is the question about the origin of the horrible practice. Have they no human hearts to yearn toward their slaughter-doomed fellow-beings? no human stomachs to revolt at the sight of gore? How many thousand times sooner would even famine tempt our own people to still their hunger with grass-seed and raw herbs? I have often lain awake at night and pondered on those questions, and it seems to me as if the rage of revenge could possibly tempt me to devour the flesh of a mortal enemy, but I do not see how anything but madness can drive a man to use his teeth on the bodies of his own domestic cattle."

The fact is that the step from frugality to cannibalism is much harder to explain than the step from beef-eating to man-eating. Four hundred millions of our fellow-men have so thoroughly gotten rid of the flesh appetite in all its forms that they would rather



THAKOMBAU, KING OF THE FIJI ISLANDS.

die of protracted famine than consent to a change of their frugal diet, while the flesh-eating nations of the Caucasian race are always apt to waive their scruples to anthropophagous expedients whenever such expedients become the only alternative, not of death, but of protracted deprivation of flesh food. Dr. Charles Letourneau, in his classic work on sociology, proves that occasional relapses into cannibalism have been recorded in every country of Europe and the two Americas, and enumerates not less than seven varieties of pretext under which the practice has prevailed among tribes considerably advanced above the lowest levels of barbarism: Actual want, gluttony, warlike or revengeful anger, religious motives, filial piety, and judicial retribution.

Among the Fiji Islanders, the custom seems to have been as immemorial as war itself, and to have at first been admitted without the slightest misgiving as to the possibility of moral objections. To kill a man for the sake of his meat would have been considered as wicked as to kill him for the sake of his coat; but if he had to be slain anyhow, the waste of his body would have been deemed gross improvidence. After a victory in war, the bodies on the battle-field were carefully collected and salted; criminals, on the eve of their execution, were visited by meat-dealers, who indemnified the community for the privilege of claiming the remains. By the incessant efforts of the missionaries, the time-dishonored custom has been fairly banished from the smaller islands, but is still known to linger in the mountain districts of Viti-

Levu, especially in the upper valley of the Kaileva River—a stream navigable to a distance of nearly sixty miles from its mouth.

Hunger certainly cannot furnish an excuse for the prevalence of cannibalism in an archipelago that fairly combines all the climatic blessings of the tropics with the inexhaustible food stores of a summer sea. Twenty or thirty varieties of crabs, countless fish, both of the sweet-water and marine species, bird's-eggs, turtle-eggs, and mollusks, can be had at any time of the year for the trouble of collecting them along the rocky shore; the forests abound with berries, and six varieties of edible roots yield enormous crops whenever a dozen days a year are devoted to the work of cultivation.

Natural advantages of that kind make the Fijians averse to hard labor, but also encourage them to exhibit a spirit of independence creditably contrasting with the abject servility of their kinsmen on the Australian mainland. At the approach of a stranger, they gather around under the irresistible impulse of curiosity, but hesitate to accept trinkets, and resist bullying with a promptitude that has saved them from the doubtful honor of British colonization. They naturally suspect the motives of their philanthropic visitors, but after the experience of the last fifty years, have still more legitimate reason for avoiding contact with foreigners. In 1862, French traders introduced an epidemic similar to influenza ("grippe"), that almost



A NATIVE FIJI.

depopulated the west coast of the main island; and in 1875, a still worse plague was disseminated by the crew of a measles-stricken British man-of-war. The epidemic spread from Viti-Levu to nine of the neighboring islands, and according to a moderate estimate, caused the death of 47,000 natives—a full third of the entire population of the little archipelago.

It is a curious fact that among the natives of a tropical climate diseases of that sort are apt to assume a virulence unknown to the higher latitudes. The explanation seems to be that habitual indoor life

tarrh to which the sailors had got pretty well used in the course of their long voyage.

Indoor life is almost unknown among the aborigines of Fiji, since even the palace of their king is little more than an open shed, hung with flounces and flags. Since the introduction of systematic agriculture, the chiefs of the principal villages have, however, recognized the advantage of storing their surplus of field-produce in well-roofed buildings, and on high festivals those granaries are now used as public assembly halls, or as the scenes of the dances of which the na-



THE FIJI DANCE.

has, as it were, inured our system to certain blood-poisons, as an opium-eater may gradually get his organism to tolerate enormous quantities of a drug which even in small doses would endanger the life of a novice. Catarrh-microbes, measles-virus, the mirasmus of scrofula and scurvy, lose part of their virulence by gradual and repeated introduction; but on the organism of an unprepared race, they act with full force; and one of the first explorers of the South Sea Islands mentions that a few minutes' interview of the sailors with a crowd of natives, affected numbers of the latter with nausea and fever, followed by a violent cough—all modifications of the chronic ca-

tives are passionately fond. If weather and good music have attracted a large crowd, the festivities often become extremely animated, so much so, indeed, that foreign spectators can hardly help ascribing their extravagance to the influence of intoxication. The dancers trot about first on their heels, then on their hands and feet, till at a given signal they all start off at full speed, but return in a wide circle, whirling about in smaller and smaller rings, and at last plump down in sheer exhaustion.

But even in the midst of those wild antics they never omit to observe all details of the elaborate code of ceremonials established for the intercourse of

the lower classes with their chiefs, who, indeed, are very prompt to resent every symptom of neglect in that respect. The king and the principal island princes can be approached only on all fours, till they deign to excuse the visitor from that inconvenient mode of locomotion. On meeting a chief in a narrow path, a plebian must step out of the way altogether, and await the transit of the superior biped in a posture of humility; but the etiquette of the native court does not stop there, and if by any accident a member of the royal family should stumble, a com-moner witnessing the mishap is required to fling himself on the ground without a moment's loss of time, and flounder about in a conspicuous manner, in order "to attract towards himself the ridicule which such an accident might have the effect of drawing upon his superior!"

(To be continued.)

#### DIET IN RELATION TO HEALTH AND LONGEVITY.

FOR a large share of the instructive facts contained in this article, we are indebted to a very interesting paper by Dr. P. G. Remondino, of California, which was read before a meeting of the State Medical Society of that State, a few months ago. This article may be considered as in considerable part an abstract of Dr. Remondino's able paper.

Hufeland called attention to the important relation of diet to longevity more than a hundred years ago. Among other interesting cases, Hufeland mentioned that of "Old Parr," who died at the age of one hundred and fifty-six years. A post-mortem examination was made by the eminent anatomist Harvey, who reported that he found no morbid condition of any organ indicating chronic disease, nor any apparent reason for death. The immediate cause of the death of this remarkable man was a surfeit occasioned by a visit to the king, who made a feast in his honor, in partaking of which "Old Parr" departed from his usual simple regimen, and induced a fit of indigestion from which he died. According to Dr. Harvey's report, the old gentleman might have lived a quarter of a century more as well as not, if he had not deviated from his usual frugal mode of life.

The advantage of a simple, frugal diet, even though it may not be made up of the best material, is well illustrated by the example of Jonas, a monk in the monastery of the Mochans, in Egypt, who lived to the age of eighty-five years on a diet of raw herbs. During all this time he never once slept in a bed, his only repose being taken while sitting in a chair.

St. Anthony and his monks ate but once a day. This same practice is still followed by the Trappist

Among the proofs for the irreclaimable savagery of the Fiji Islanders, it has been mentioned that in 1866 they destroyed 40,000 coffee-trees that had been imported at considerable expense, and tried to conceal their motive by blaming the mischief on a hurricane. That motive, however, was probably the dread of seeing their European oppressors get a pretext for extending their plantations, which had already introduced gambling, rum, and smallpox, and threatened to furnish an excuse for the wholesale importation of Chinese coolies.

Thus far the Fijians have preserved their independence better than any other tribe of the fast degenerating Polynesians, and their chieftains can hardly be blamed for sacrificing the prospect of industrial advantages to the hope of escaping a fate which all their neighbors have found to involve national ruin.

monks during one half of the year, and the rest of the year, they eat but twice a day. Their fare is of the most frugal character, being composed wholly of fruits, grains, vegetables, and milk. They never take meat in any form, and fast a large number of days in each year. St. Anthony and his followers ate only bread, with a little salt and water. He lived to the age of one hundred and nine years.

St. Paul the Hermit lived to the advanced age of one hundred and fifteen years, his daily rations consisting solely of a few dates.

St. Francis de Paul lived to the age of ninety-one. His dietary was of the most simple character possible. He took but one meal at night, and drank nothing but water, often fasting several days in succession.

Cardinal De Falis died in the year 1785 at the advanced age of one hundred and five years, after living a most abstemious life.

The health advantages of fasting have long been recognized by prominent writers in the Catholic Church. A prominent Catholic writer, Lessius, remarked that "the fast was the greatest blessing that the Church had given to mankind, as it increased their days on earth."

Another Catholic writer, Saint Basilius, observed that children ran less risk in their earlier years if reared upon a spare diet. This observation is in common with that made by most experienced physicians, that children who have been brought up upon a simple non-flesh diet, and who have not been overfed, recover quickly from sickness, and enjoy almost complete freedom from convulsions and other nervous disorders of infancy and early childhood.

Sir Henry Thompson, a modern and eminent writer upon diet, remarked that "the typical man of eighty or ninety years is lean and spare, and lives on a slender diet." Aristotle made the remark, "Eat little and labor, if you wish to be well." Galen, an eminent medical writer of the early portion of the Christian era, remarked that "delicate persons could be made to reach old age by a careful dietary and frequent fasting," and insisted that health depends chiefly upon a spare diet.

A famous Roman, Pomponius Atticus, suffered so much from a disease supposed to be incurable that he determined to end his life by starvation. Instead of dying, however, he recovered his health as the result of his abstinence.

Cornaro, the famous Italian, lived sixty years on a diet consisting of twelve ounces of solid food and sixteen ounces of drink, daily, abjuring flesh food altogether, after he had been completely broken down and given up to die at the age of forty.

Diogenes, the philosopher who lived in a tub, and who went about in the daytime with a candle looking for an honest man, one day captured a young man whom he found going to a feast, and carried him to his friends, declaring that he had rescued him from imminent danger.

The eminent Addison remarked, "When I see a fashionable table set out in all its magnificence, I fancy I see gout and dropsies, fevers and innumerable distempers, lying in ambuscade among the dishes."

The majority of people use better sense in feeding their dogs and their horses than in feeding their children and themselves. In the New York Hospital for Children, no flesh food is allowed during the first five years of life. It has long been noticed that the children of these institutions are less subject to disease, and recover more quickly when ill, than children who are allowed to eat flesh food. It is also a well-known fact that nursing children are much less liable to take disease than older children. Is not this probably due to their simple diet? A dog or a caged lion fed upon so promiscuous a diet as are children in most families, would soon sicken and die. It is no wonder that our children are so puny, and that so large a proportion of them lay in early childhood the foundation for chronic invalidism. The writer has met many cases in which dilatation of the stomach and prolapsed stomach and bowels were results of early disorders of digestion.

The influence of a spare diet upon the body is well shown by the remarkable circumstance related by Sir Thomas Brown, who asserts that in the wars waged

by Rome in the Orient, the bodies of the Roman soldiers underwent decomposition, while those of the slain Persians remained untainted and uncorrupted, drying up like mummies. The Persians and Syrians were a remarkably abstemious people. Their usual diet consisted of a little flour and a few herbs. According to Xenophon, King Cyrus of Persia accustomed his people and himself to subsist on one meal a day. The Persians were noted at that time, as well as at the present, for great endurance and longevity. The diet of the Persian is still almost exclusively vegetarian in character. The remarkable resistance of the dead Persian to the ordinary processes of decay, was doubtless due to the purity of his tissues, and their freedom from grossness; while the readiness with which the dead Roman took on the process of decomposition, is easily accounted for by the more luxurious diet, and especially the consumption of flesh food, which at that period had become common among the Romans.

There is no greater error than the supposition that a simple diet and a tropical climate are inimical to vigor and energy in a race, and to personal bravery. Abundant proof for this statement is to be found in the dashing and most successful wars waged by the Saracens. The bold fierceness of the Bedouins and other Arab tribes at the present time, is well known. The bravery of the African soldiers under Hannibal is a conspicuous fact in history. The sturdy natives of South America who engage in the laborious occupation of gathering gum from the India-rubber tree, are vegetarians, and eat but two meals a day. The vegetarian coolie of China carries upon his back a load which would break down two Englishmen. The vegetarian German peasant woman carries off upon her head a weight which the average American college student could scarcely lift, and could carry off the young man himself if she chose. Among the most hardy specimens of the human race to be found anywhere are the Canary Islanders, who live wholly upon *gofio*, which is simply corn or other grain parched, ground up, and eaten with milk or water.

Numerous maladies are due to overfeeding and flesh eating. Fothergill tells a story of a gouty old priest who was captured by Barbary pirates, and was cured by the meager diet and severe labor to which he was compelled to submit. Why should not intelligent men and women voluntarily subject themselves to the sanitary influence of the same life-and-health-saving simplicity of habits and abstemiousness of regimen, for the sake of the mental and moral quickening which they would gain, as well as the physical well-being which would thus be secured?

## THE EAR, THE EYE, AND THE NOSE.

BY A DOCTOR.

## 2.—The Eye: Its Structure and Hygiene.

In a deep socket hollowed out of the skull, the eye, the most sensitive organ of the human mechanism, is placed for safety. This cavity is open in front, and communicates at its back part with the cavity of the skull, by an opening through which pass the various nerves which connect the several parts of the eye with the brain.

The eyeball, which comprises the chief organs of sight, is nearly round, and complicated in structure. It is formed of three distinct layers, or coats. The outer coat consists of a dense white membrane, the sclerotic, better known as the white of the eye, which covers the entire eyeball with the exception of the cornea—the transparent portion in front. The choroid, the second coat, is a colored layer which lies closely in contact with the outer coat except just behind the cornea, where it is supplanted by the iris, a movable muscular curtain lined with dark pigment. The opening in the center of the iris is the pupil. The third coat, the retina, is nervous in structure, is spread out over the choroid, and lines the back part of the eyeball.

The retina contains the nerves of sight, and is formed by the spreading out of the end of the optic nerve, which enters the eyeball from the back at a point nearly opposite the pupil. By means of this nerve the impression of sight is communicated to the nerve centers of the brain which preside over it.

Inside the three coats, the eyeball stores its three humors. The greater portion of the cavity is occupied by the vitreous humor, a transparent, jelly-like substance, which is hollowed out in front to receive the second humor, a much harder transparent body, and called, from its lens-like shape, the crystalline lens. The space between the lens and the cornea gives room to the third humor, the aqueous,—the watery fluid which runs out when the eyeball is punctured.

The crystalline lens is situated directly back of the iris, and, like the photographer's lenses, is the picture-taking device. Light strikes the lens through the opening in the iris, and the objects within its radius are reflected upon the lens, while the retina, just back of the lens, constitutes the screen upon which the image is thrown, and transmits the impression to the brain through the optic nerve. The iris acts as a curtain to protect the nerve from too in-

tense light, contracting in a strong light and dilating when the light is dim.

If we hold a lens in front of a screen, we will observe that images of near and of distant objects are not equally perfect, and that to secure perfect results we must either change the position of the lens, or use a thinner one for distant objects than for near objects. As the lens of the eye can neither be moved or exchanged for a thinner one, nature has provided a delicate means by which the thickness of the lens may be regulated, and thus the eye adjusted to see with equal clearness objects at different distances. This is the function of a circular muscle which surrounds the lens, and the adjustment which it makes is known as accommodation.

Rays of light in passing through the lens, are refracted, and thus the image formed upon the retina is an inverted one; but the brain makes allowance for this, and traces the object back to the original, and recognizes it as upright. And although the image is formed on the retina of each eye, only one object is normally seen, since the muscles of the eye, of which there are six, keep the eyeballs adjusted with such nicety in relation to each other, that the image is formed on corresponding portions of the retinas, and, transmitted harmoniously to the brain center, is there recognized as one object. But if the muscles from any cause do not accord, "double vision" results.

The power of distinguishing color belongs to the retina, which is supposed to possess the distinct elements corresponding to the primary colors of light—red, green, and violet. Rays which excite the green element, we call green, etc.; while rays which excite more than one element, produces some of the derivative colors, as orange, yellow, etc. Those which excite all equally give the impression of white light. A person born with one or more of the color elements of the retina lacking, is not uncommon, and is said to be color-blind.

Recognizing the delicate structure of the eye, nature has provided it ample protection. The eye-socket is lined with fat, which acts as a cushion to protect from jars. The eyelids are lined with a delicate mucous membrane extending over the front of the eyeball, and protects the ball from dust and other foreign particles. Along the edge of each eyelid

little glands pour out an oily substance to prevent the overflow of tears, and rows of hairs—the eyelashes—aid in protecting the eye from dust and too bright light.

Tears are formed by little glands, one in the outer upper side of each eye-socket. Their purpose is to moisten the eye. This secretion is constantly forming, and unless produced in too great quantity, as in weeping, is drained away into the nasal passages through the nasal ducts, with which the glands are connected.

**HYGIENE OF THE EYE.**—The effort to accommodate the eye in looking at near objects requires the action of several muscles, which must continue to act so long as the sight remains fixed upon near objects. When the effort is long sustained, these muscles become weary; and when not given proper opportunity for rest, they become seriously diseased.

If the eyes become easily tired, and can be used but a short time without a blurring of vision or aching of the eyeballs, it is probable that there is some serious defect, and a competent oculist should be consulted.

Never try to read or do work requiring close application of the eyesight, in a poor light. In reading, have the light come over the shoulder, the left, if convenient, and avoid using the eyes in a glaring light.

Avoid exposing the eyes to a sudden, bright light. When the eyes are opened after being closed for some hours, as on awaking from sleep, some little time elapses before they are fully accustomed to the light. On this account, it is not well to employ the eyes in reading immediately on waking in the morning.

Reading on the cars is injurious to the eyes on account of the shaking which continually changes the distance between the book and the eye, and thus taxes most severely the organs of accommodation. Reading when lying down is also injurious.

The common use of the numerous domestic and patented eyewashes is a frequent cause of serious disease of the eye. When the eyes are simply irritated by excessive work, a cold, exposure to dust, or any similar cause of irritation, frequent bathing with tepid water, or rest with a thin cloth wet in tepid water laid over the eyes, is a good and harmless remedy. If the case is not speedily relieved by some simple remedy of this sort, consult a competent physician.

If dirt becomes lodged in the eye, it may usually be removed by a corner of a folded handkerchief, or by the end of the finger previously moistened with oil. If out of sight, under the lids, a loop of a hair passed under the lid and withdrawn will generally bring it out. A piece of steel or other sharp substance which has become imbedded in the eyeball should never be left to “work out,” but a surgeon should be consulted at once.

If lime or any other alkali has gotten into the eyes, bathe them with water at once, and as quickly as possible apply a weak solution of vinegar, using about a tablespoonful in half a glass of water. If vinegar is not at hand, put a little oil into the eye.

Inflammation of the eyes, if attended by pain and intolerance of light, demands the attention of a skillful physician at once. All inflammations of the eye accompanied by a mattery discharge are contagious by contact, and persons suffering in this way should never use the same handkerchief, wash-basin, or towel used by others, and should sleep alone. Neglect of this rule sometimes allows a dangerous disease of the eye to extend to a large number of persons. Such a case requires careful medical attention.

Grave diseases of the eye are constantly traced to the use of alcohol and tobacco. Tobacco blindness is a very common malady. The first symptom is color blindness, which is followed by haziness of vision, and finally complete or partial loss of sight.

(To be continued.)

**A FINNISH BATH.**—A traveler stopping at Hango, a watering-place in Finland, sends to the *Baltimore Sun* the following description of a Finnish bath: “The secret of the attraction of the resort lies in its baths. These consist of a large building with small compartments for bathers, and a swimming basin with water from the sea, heated by steam, and ever fresh-running. Each visitor gets a carpeted room, with a lounge to sleep on when done bathing. Stretched on the lounge, one is covered with a heavy layer of mud from the bottom of the sea. The attendant then comes to pinch, beat,

press, and scrub the body all over for half an hour, until one faints or seems half dead. The next process is to be plunged into the water tub, then brushed with soap, then different kinds of douches for another half hour. Next comes a swim in the great basin, and then a thorough drying by massage. Covered up with blankets, one then goes to sleep like a top, and after—say two hours, the subject of all this process is rubbed and dressed. All of this is done by Finnish women of all ages, dressed in blue skirts, white and red bodices, and with bare feet.”

## COUGHING IN CHURCH.

REV. T. DEWITT TALMAGE gives the following graphic description of "people who cough in church," but forgets to add the important fact that nearly all of these coughs might be cured by a simple effort of the will. Persons who are subject to disease of the lungs which makes coughing a necessity (such diseases, for example, as consumption, bronchitis, and other maladies in which there is matter to be expectorated, and which ought to be expelled from the lungs), do not cough all the time, and according to our observation, are not the persons who disturb their neighbors as well as clergymen by coughing in church. Persons who really need to cough, generally have periodical attacks of coughing which are relieved when the accumulated matter has been expelled. These seasons are usually in the morning and evening, sometimes at intervals during the day. The perpetual cougher is not a consumptive or an asthmatic, but a person who has an irritation of the throat which is very likely aggravated and perpetuated by the act of coughing. The disposition to cough can usually be repressed by a little effort of the will. Somehow, coughing is contagious. If one person coughs in church, fifty more are set coughing, especially if there happens to have been a change in the weather which furnishes some excuse for the exercise. But here is what Mr. Talmage says about it:—

"There are some of the best Christian people who do not know how to carry themselves in religious assemblages. They never laugh, they never applaud, they never hiss, yet, notwithstanding, they are disturbers of public worship.

"There is, for instance, the coughing brigade. If any individual right ought to be maintained at all hazards, it is the right of coughing. There are times when you must cough. There is an irresistible tickling in the throat which demands audible demonstration; it is moved, seconded, and unanimously carried, that those who have irritated windpipes be heard. But there are ways, with hand or handkerchief, of breaking the repercussion. A smothered cough is dignified

and acceptable if you have nothing better to offer. But how many audiences have had their peace sacrificed by unrestrained expulsion of air through the glottis!

"After a sudden change in the weather, there is a fearful charge made by the coughing brigade. They open their mouths wide, and make the arches ring with the racket. They begin with a faint 'Ahem,' and gradually rise and fall through all the scale of dissonance, as much as to say: 'Hear, all ye good people! I have a cold! I have a bad cold! I have an awful bad cold! Hear how it racks me, tears me, torments me! It seems as if my diaphragm must be split! I took this awful bad cold the other night. I added to it last Sunday. Hear how it goes off! There it is again! Oh, dear me! If I only had Brown's troches, or the sirup of squills, or a mustard-plaster, or a woolen stocking turned wrong-side-out around my neck!'

"Brethren and sisters who took cold by sitting in the same draft, join the clamor, and it is glottis to glottis, and laryngitis to laryngitis, and a chorus of scrapings and explosions which make the service hideous for a preacher of sensitive nerves. We have seen people under the pulpit coughing with their mouth so far open we have been tempted to jump into it!

"There are some people who have a convenient, ecclesiastical cough. It does not trouble them ordinarily; but when in church, and you get them thoroughly cornered with some practical truth, they smother the end of the sentences with a favorite paroxysm. There is a man in our church who is apt to be taken with one of these fits just as the contribution-box comes to him, and cannot seem to get his breath again till he hears the pennies rattling in the box behind him.

"Cough, by all means; but put on the brakes when you come to the down-grade, or send the racket through at least one fold of your pocket handkerchief!"

## THE ORIGIN OF DIPHTHERIA.

As this disease is one of the most fatal of the contagious maladies common to childhood, and as it is a disease which frequently prevails in epidemic form, sometimes carrying off half the young children in a neighborhood, everything which throws any light upon its origin and modes of communication is of great interest. The following brief summary of a

communication made by the eminent Prof. Klein, of England, to the Royal Society of London, contains new facts of very great interest:—

"Early in the present year Mr. Klein reported the discovery of two distinct kinds of microbes in diphtheritic membranes, one of which is much more virulent than the other. He calls attention to the



further fact that in human diphtheria the microbe, or bacillus, that causes the disease is present only in the membrane that forms in the throat, and is not found in the blood nor in the diseased viscera. The case is the same with cats and guinea-pigs inoculated with artificial cultures. The bacillus multiplies at the seat of inoculation, its growth there producing the chemical poison which so seriously affects the viscera. In the cow, however, the bacillus passes from the seat of inoculation into the system, and makes its appearance in the milk. This is an important fact, as it gives a clue to the dissemination of the disease in cases that puzzle the sanitarian. In the last three years, a curious relation has been found to exist between a pulmonary disease existing in cats and human diphtheria. When children have nursed a cat affected with this pulmonary disease, they have sickened afterward with well-marked diphtheria. On the other hand, when children have been ill with diphtheria, their cats have been found to die of an acute lung trouble. Post-mortem examinations of cats suffering with the lung disease in question, and of others that died from diphtheria produced by inoculations, appear to have demonstrated the identity of the cause of death in the two cases.

"The conclusion seems to be inevitable that in many instances children contract this dangerous disease from their feline pets. But from what source does the cat derive it? Professor Klein suggests that in many cases it is from drinking the milk of

cows that are suffering from diphtheria. He gives an instance of an epidemic of diphtheria affecting sixteen cats, thus produced. An attendant at the experimental station, contrary to orders, gave to two cats some of the milk drawn from a cow ill with diphtheria, induced by inoculation with the human diphtheria bacillus. From these two the disease was communicated to the others, with the result that some died of it. Had they been free to wander about the neighborhood, as in ordinary circumstances, the consequence might have been more serious. The disobedience of the attendant might have had for its sequel the death of a number of children, and have become the starting-point of a wide-spreading pestilence.

"The existence of diphtheria bacilli in the milk of cows suffering from diphtheria is a most important matter for the dairyman and housekeeper to bear in mind. The former should take the most scrupulous care to exclude all poisonous milk from his cans. Only a monster of depravity could deliberately send abroad among his customers the seeds of death in the form of diphtheria bacilli. Upon the housekeeper it is incumbent, of course, to use, if possible, only milk furnished by conscientious dealers. If in any case there is reason to suspect its wholesomeness, it should be boiled before using, in order to destroy the morbid power of the disease germ. A jealous eye upon the family cat and upon the milk supply would, according to Dr. Klein, prevent many a death now considered due to an inscrutable act of Providence."

### JAPANESE HEALTH CUSTOMS.

ACCORDING to an editorial in a recent number of the *British Medical Journal*, the Japanese take a bath at least every two or three days, and in most cases every day. Often baths are taken several times a day. Baths are usually taken very hot,—at a temperature of from 110 to 120°, or even higher; but not continued more than three or four minutes. The effect of these hot baths is said to be to warm the body in winter and to cool it in summer,—results quite paradoxical, it would seem, and yet quite in accord with the known facts of physiology. Instead of being relaxing, as it might be supposed, these hot baths are found to be very stimulating, producing a feeling of increased vigor, whereas a prolonged warm bath would have the opposite effect.

The women never drink alcoholic drinks of any sort. Men drink sparingly of a light wine made by fermenting boiled rice. Drunkenness, however, is rarely or never seen among the native population.

Mothers nurse their children until they are two or three years old, and carry them with them wherever they go. Usually while the child is small it is carried in a bag upon the mother's back. The main diet of the people is rice, flesh meat being scarcely ever eaten. Milk is used very little, being rather taken as a medicine during sickness. The Japanese speak of cheese as "putrefied cow-juice," both its taste and odor being intensely disliked by them.

Beans, radishes, and other vegetables are greatly used. A Jinriksha-man will draw a traveler in his little two-wheeled vehicle at the rate of from four to eight miles an hour, and thirty miles a day, for many days in succession, on a diet consisting solely of rice. These facts should be very suggestive to the beef-fed Englishman, who imagines that strength can be obtained from no other article of food so readily and in such abundant supply as from the flesh of animals.

J. H. K.

## CHURCH VENTILATION.

THE *British Medical Journal* gives its readers the following excellent advice respecting the necessity for pure air in churches, calling attention to the strange fact that in England the managers of theaters are compelled to supply these places of amusement with an abundance of pure air, while church-goers are afforded no means of obtaining a fresh-air supply, whatever. Unfortunately, a similar state of neglect prevails in this country as well as in England.

"Probably all church-goers have at one time or another experienced the irresistible tendency to drowsiness or somnolence that begins to be felt about the beginning of the sermon, and is only finally dissipated on quitting the church for the open air. Many people are inclined to assume rather hastily that pulpit oratory is to be held accountable for the creation of the soporific influences of the hour: but medical men and others who have considered the subject must be aware that, in nine cases out of ten, it is the closeness and heat of the atmosphere, and not the length of the sermon that is at fault.

"Because churches are, as a rule, large and roomy edifices, architects assume that ventilation is unneeded, and vicars and rectors are content to hold the same belief, although they are even greater sufferers by the foul state of the atmosphere than the congregation. Clergyman's sore throat, hoarseness, and voicelessness are directly induced by the constant and continued efforts of speech in a heated and relaxing atmosphere, and the faculties of the congregation are dulled and blunted by the same cause. Church windows are not made to open; and even if they were, unless the en-

tering air is directed upward to a considerable height, it would fall upon the heads of the congregation, and complaints of drafts would be made to the church-wardens, which would promptly secure the closing of the windows.

"Most churches are heated by stoves or hot-water coils, but in very few cases is there any arrangement for admitting fresh air to come into contact with the heated surfaces of pipes or stoves before passing into the church. Exhaust ventilators in the roof are practically unknown in churches; consequently, the foul and heated air never escapes, and after service, as the heated air cools it descends, and a fresh congregation rebreathes the used air of its predecessors. In this respect churches are even worse off than theaters, where the cubic space per head is far less, for all theaters have sunlight burners in the roof of the auditorium, which act very efficiently as exits for foul air.

"Although different systems commend themselves to different persons, we are inclined to advocate, in winter, the admission of fresh air warmed by contact with hot water coils beneath gratings in the floor, and numerous exhaust ventilators in the roof provided with rings of gas-jets to keep up the temperature of the escaping air. In summer, fresh air should be admitted by revolving panes in the windows, so as to secure an upward direction, the exhaust ventilators being also kept in action. If places of worship were adequately ventilated, 'church headache' would soon become as little known as 'theater headache' now is, thanks to the regulations that the latter places of amusement are now subjected to."

## A NOTE TO BE MET.

"My jolly young fellow," said Health, "now you really have lately been drawing on me rather freely; who riots with Pleasure by night and by day must expect that, in time, there'll be something to pay. For the favors you've had, that you may not forget, suppose you just give me your note for the debt, with the interest, of course. Let me see,—twenty years,—time enough, though you'll then be still more in arrears. Write as I dictate: 'Twenty years after date, I promise to pay to my Health, sure as fate, for value received in sin, folly, and pleasure, these prominent parts of estates I should treasure: My limbs to be racked by rheumatics and gout;

My teeth to decay till they mostly fall out; My brain to grow soft and my memory to fail, With neuralgia to beat like the lash of a flail; My eyes to grow dim and my hair to turn gray, While dropsy and asthma take turns day by day; My nerves and my lungs to together give way; My stomach to fall to dyspepsia a prey; My taste to forsake me, my voice to grow weak, While my ears cannot hear, save when conscience shall speak,— All of which to be paid, with the interest, in pains, At the corner of Misery and Poverty Lanes,' Now sign it. When due, pray do n't waste your breath For extension. Remember, the protest is death."—*Sel.*

*Mrs. Bunting*: "What does *hors du combat* mean?"  
*Bunting*: "It's meaning is clear—self-explanatory in fact. It means a war-horse."—*N. Y. Sun.*

THE pipe was invented just two hundred years ago by a German whose memory must be said to be *mal odoratus*.



# The HOME GYMNASIUM.

## IS THE RACE DETERIORATING PHYSICALLY?

It is a common remark that the human race is growing "weaker and wiser." That the race is growing weaker is too apparent to be denied; whether or not it is growing wiser in the best sense of the word, is a question which might be discussed. Knowledge is certainly increasing. This is especially true in regard to knowledge respecting the needs of the physical man, and the relation of physical conditions to mental and moral. If we are wise enough to make a proper use of this knowledge, it is possible that we may succeed in growing stronger as well as wiser. The ancient Greeks believed a sound body necessary for a sound mind, and hence gave great attention to athletics, and to all kinds of physical exercise. Girls and women, as well as boys and men, were required to undergo such exercises, and to engage in such games and sports as would develop the muscles and the whole physical frame. Aristotle, the teacher of Alexander the Great, well understood the necessity of developing the body, and hence took his pupil away from the luxuries and pleasures of the court, and subjected him to the rigorous regimen necessary for developing a vigorous body. The early Romans, as well as the Greeks, gave great attention to the development of the physique. Julius Cæsar was an athlete. All kinds of physical exercises and sports requiring vigorous activity of the body, were encouraged and much in vogue among the Romans.

During the darkness of the Middle Ages, however, the importance of physical education was lost sight of. One of the most pernicious corruptions which at an early period crept into the Christian church, was the idea that the body must be abused and tormented in order that the soul or spirit should be perfected. This idea was carried to such an extreme that one of the early Fathers asserts that the "purest souls are to be found in the dirtiest bodies." In accordance with these ideas, the corrupted church destroyed the magnificent gymnasias and baths erected

by the Roman emperors, and brought baths and gymnastics into such disrepute by anathemas and bulls that one historian tells us the bath was actually unknown in Europe for a thousand years. It is only in very recent times that cleanliness has come to be considered "next to godliness," and probably even yet the majority of Christian people entertain the notion that there is an intimate relation between hard muscles and hard hearts, while many very excellent persons would as soon allow their children to witness a prize fight as to visit a gymnasium. The result of these erroneous notions has been a distinct and noticeable decline in physical vigor, which may be recognized as having progressed even within the memory of almost any person of adult years.

George Washington, the father of his country, on one occasion threw a silver dollar the distance of six hundred feet, a little less than one eighth of a mile. Chief-Justice Coleridge, while visiting the spot some years ago, asked a United States senator the question, "How did he do it?" Said the senator in reply, "A dollar went farther in those days than now!" Muscles and nerves, as well as the almighty dollar, went farther in those days, and were able to accomplish more than they do now. Frazer, the champion jumper of the world, covers the distance of twenty-three feet. Washington surpassed the champion's best jump by a whole foot. The man does not live in civilized land to-day who could space at a single leap the distance of nearly a rod and a half.

A short time ago, the writer had the pleasure of addressing, by invitation, at one of our largest Western schools, an audience of fifteen hundred young men. The question was asked, "How many of you young men are able to lift a heavier weight or do a larger day's work, or are capable of greater physical endurance of any sort, than your fathers?" Only fifteen hands were raised. Taking into consideration the fact that in a question of this sort a young man

is pretty certain to give himself the benefit of the doubt, the inference is a fair one that of the fifteen hundred young men present, at least ninety-nine out of each hundred considered themselves inferior to their fathers in physical development and powers of endurance. Probably the proportion of young men who have less physical stamina than their parents is really greater than this; for the audience referred to was almost wholly made up of young men who were country born and bred, and who consequently had had a better opportunity for physical development than city boys.

Within a month, the writer also addressed an audience of eight hundred young women, students at a Western college. In reply to the question, "How many of you are perfectly well, suffering no inconvenience from headache, backache, nervousness, or other evidences of ill-health?" in that large audience of eight hundred young ladies, only five were found who claimed to be in perfect health, and able to do more than their mothers. The race of strong, vigorous men and healthy, enduring women seems to be almost extinct. What will the next generation be?

Another evidence of the degeneration in physical vigor to which we have referred, is to be found in the fact that young men of the present day, as a rule, are not looking for hard work, but for an easy time. Even young men who are reared on a farm show a disposition to gravitate toward the cities, seeking for such employment as wielding the yardstick in a dry-goods store or sticking labels on bottles in some drug shop. The average young man of today has no taste for such occupation as logging, grubbing, plowing, and subduing the forest, as did the pioneers of half a century ago. If he engages in agricultural operations at all, he no longer swings the cradle or binds the grain into sheaves, but rides upon a patented machine which does the whole work automatically. He even rides on a sulky rake, a sulky plow, a sulky cultivator, and manages to dispense almost altogether with the services of the spade, the hoe, the ax, and other old-fashioned implements of agriculture.

The homely arts of housekeeping are no longer fashionable with young ladies. Embroidery, piano-playing, drawing, painting, sketching, etching, and like accomplishments, are thought to be sufficient to engross the time of the average young woman of the period. Scarcely one can be found who can wash and sweep and weave and milk cows and clean house, as did her mother or her grandmother. It is getting fashionable to be pale and weakly. Indeed, the

average young woman has become so perverted that she considers it masculine to be thoroughly healthy and strong, and able to do something.

Sometime ago the writer was showing a young woman how to breathe, using the lower part of the chest and the abdomen. The poor deceived creature raised her hands and rolled up her eyes in horror, and exclaimed, "Indeed, I would n't breathe like that for anything. Why, that's just the way a man breathes!" Perhaps this dread of breathing "like a man," and as all other mammals breathe, with the exception of the civilized woman, or at least the inability to do so, is one of the chief causes which lie at the foundation of the physical inferiority of the present generation of American young men and women. The young woman eats as the young man eats. Her stomach digests as a man's stomach digests; her heart beats just as a man's heart beats; her muscles contract just as a man's muscles contract. Indeed, all of her vital organs, with this one exception, behave just as do the corresponding organs of the other sex. Can any one tell us why her lungs should not breathe as do a man's lungs? And yet she is so afraid she will be thought "masculine" because she breathes like a man, that she deliberately ties together the handles of her breathing bellows by means of a corset or bands about the waist. In consequence of this artificial restriction, not only is the breathing interfered with, but stomach action, liver action, heart action, and indeed the action of nearly all the vital organs, is seriously interfered with. The muscles of the waist cannot act freely and efficiently, and in consequence, nearly all the muscles of the trunk, especially those of the back and abdomen and the muscles which act upon the lower portion of the chest, are not properly developed, or if they have been once developed, deteriorate, so that the young woman finally comes to feel that she must wear stays or something rigid about the body "to hold her up;" and when this artificial support is removed, she declares she feels as if she would "fall all to pieces."

We are inclined to think that perhaps the greatest of all the causes of physical feebleness of the rising generation of young men and young women, is to be found in the fact that their mothers wore corsets and tight waistbands. We inherit hair, eyes, and faces; why should we not inherit also muscles and bones, stomachs, livers, and nerves? Unquestionably we do. This subject we shall pursue further in future numbers, as it will be the purpose of this Department to point out the leading causes of physical or muscular weakness in the race, and the remedy, viz, properly regulated, systematic physical culture.

## HEALTH, GRACE, AND BEAUTY.—SECOND PAPER.

THOSE of our readers who have faithfully practiced daily the exercises described in our first paper, will already begin to appreciate the advantages of the exercises recommended, and we trust will by this time have recognized a very appreciable improvement in the figure, and in the ability to stand, walk, and sit in a dignified and graceful manner. The



FIGURE 1.

acquisition of a correct standing position is the foundation of scientific physical culture. Without a correct position, exercises are quite likely to do harm. Indeed, it is possible that more harm than good may be done by any given exercise, if taken with the body in a wrong poise.

The directions thus far given respecting correct poise of the body, have reference wholly to the standing position. It is equally as important that a correct position should be maintained in sitting, and to secure this, several things must be kept constantly in mind. The head must be kept well back upon the shoulders, the chin slightly drawn in. The chest must be thrown well forward, the shoulders back, and the abdomen well drawn in. Much deformity and worse results are the common consequences of a bad position in sitting. The majority of persons, in sitting down, relax the muscles of the trunk completely. The middle of the trunk falls backward, destroying the natural curve of the spine. The abdomen sinks in, the chest falls flat, the shoulders droop forward, the chin hangs slightly forward. The whole body is relaxed. In consequence, the ribs fall in, the capacity of the whole chest cavity is lessened, and the liver, stomach, and other organs which are found

above the lower border of the ribs when in a natural position, are forced down to a lower level in the abdominal cavity.

No doubt much mischief has arisen from the common use of rocking-chairs and easy chairs, so universal in this country. In traveling abroad, the American lady misses first of all the familiar rocking-chair. In a quite extensive tour on the Continent some years ago, the writer saw but a single specimen of this common household article, and that was in the house of an American clergyman, who had purchased it at a second-hand store in London, the chair having been originally brought from across the ocean by an American lady who could not get along without her rocking-chair. Rocking-chairs and easy chairs may have their places as appropriate articles of furniture for the use of invalids, but for persons in ordinary health, their use is unquestionably pernicious, at least when they are occupied for more than a very short period at a time.

When sitting in the position customarily taken in a rocking-chair or easy chair, the whole trunk of the body is relaxed. The muscles are not employed in holding this portion of the body in proper form, and consequently become weakened by disuse. If one wishes to sit in a perfectly healthy manner, he will maintain the same graceful and healthful curve of the spine which is necessary in correct standing. The chair should be of such a height that the foot can rest squarely upon the floor. The shoulders may rest



FIGURE 2.



FIGURE 3.

slightly against the back of the chair, but the middle portion of the trunk should be held free, supported only by the large muscles which nature has placed in this part of the body for this purpose. Figs. 1 and 2 show correct and incorrect positions in sitting at a desk.

ARM MOVEMENTS TO STRENGTHEN THE MUSCLES OF THE CHEST AND SHOULDERS.

*Exercise 5 (arm-bend-standing).*—Take a good standing poise, hips well back, chest up, chin drawn in, arms extended by the side. Keeping the upper portion of the arm as quiet as possible, bend the forearm up until the hands, partly closed, fall in front of the shoulders. Carry the hands to the side as far as possible, keeping the elbows close to the side of the body. This position is well shown in Fig. 3. Notice the prominence of the chest and the strong curve in the back.

*Exercise 6 (stretch-standing).*—From the arm-bend position, reach the arms straight up, stretching as high as possible, at the same time keeping the body in its former position, the hands up straight above the head, palms inward and the width of the shoulders apart. This position is well shown in Fig. 4.

*Exercise 7 (arm-reach-standing).*—From bend position, reach the arms forward, palms facing, width of shoulders apart. Reach out as far as possible without throwing the body forward (Fig. 4).

*Exercise 8 (yard-standing).*—From bend position the arms are stretched out sidewise, palms down, reaching as far as possible.

In taking this series of exercise, starting from the bend position, first, reach the arms down and stretch down as far as possible, then back to bend position, repeating three or

four times; second, reach the arms forward, repeating four times; third, reach sidewise, repeating four times; lastly, upward, repeating four times.

There are many variations of the above movements; for example, the movement may start with the arms at the side instead of in bend position. Giving the body a good poise, slowly raise the arms first forward and then back to the side, repeating four times. Raise the arms sidewise and back to the side, repeating four times. Raise the arms forward above the head, repeating four times, each time stretching the arms as far as possible when in position.

The same arm movements may be taken rapidly, swinging the arms from the side forward, or sidewise above the head, as the different positions are taken, allowing them to drop back to the side in alternation with the several positions, counting in even time.

*Exercise 9.*—With the body in good position, the back well curved, hips back, and chest well forward, raise the arms sidewise, palms down, making arms horizontal at the height of the shoulders; flex the forearms till the fingers meet in front, keeping the elbows as far back as possible. From this position, fling the forearms sidewise with vigor, repeating four times for each hand; then alternate; then both together, the same number of times.

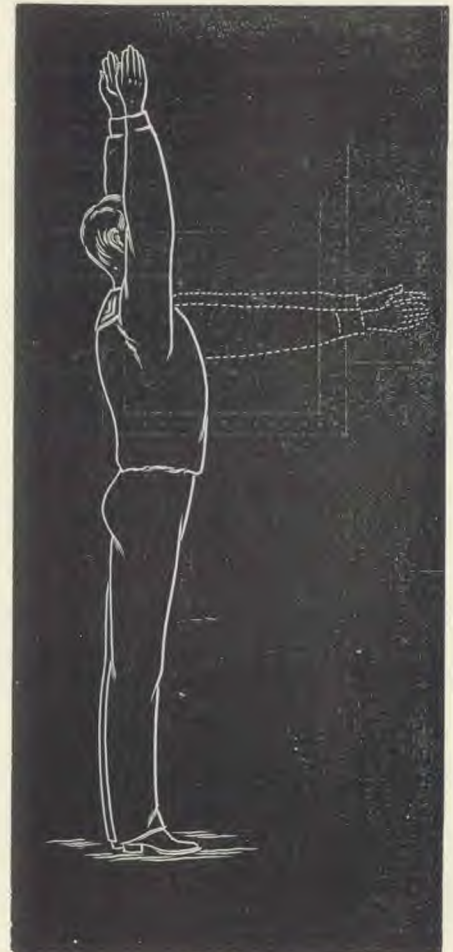


FIGURE 4.

*Exercise 10.*—Raise the arms to yard position, as in the preceding, but palms upward. Flex the forearm until it is perpendicular, keeping the upper arm horizontal. From this position, extend the arm upward above the head, then return to the half-bend position, and repeat four times. Do this with each arm; then alternate; then exercise both together, as before.

The last two exercises are especially excellent for strengthening the muscles which draw the shoulders back and hold the head up in position. In taking them, a strain will be observed in the muscles of the back of the neck and upper part of the back.

#### EXERCISES FOR THE BACK.

Weakness of the muscles of the waist is the great cause of bad position in standing, and of an awkward



FIGURE 5.

gait. Weakness of the muscles of the side causes a swaying gait. When the back muscles are weak, the back loses its natural curves, the shoulders drop backward, the hips fall forward, and a very ugly appearance of the body, in which the chest is flat and the abdomen protrudes, is the result. One of the best means of strengthening the muscles of

the back and waist is the exercise illustrated in Fig. 5. The exercise is taken as follows:—

*Exercise 11.*—Take a good standing poise, remembering the proper position for the head, shoulders, chest, and hips. Raise the arms forward until perpendicular over head in the stretch-standing position, palms forward, keeping the head well up and the back curved as strongly as possible. Bend forward, keeping the head and hands in line with the trunk of the body, until a horizontal line is reached, or as far forward as possible. After reaching the horizontal line, let the back begin to bend upward, the head dropping downward, and endeavor to reach the floor. Do not bend the knees. At the first attempt, perhaps the floor will not be reached. A few persons can easily touch the floor on the first trial, but many require long practice before they are able to touch the floor with the tips of the fingers. After touching the floor, or bending forward as far as possible,

force the shoulders backward, and slowly bring the body up to position, curving the back as much as possible in so doing, and allowing the arms, as the head rises, to hang relaxed by the side. After practice, the whole palm may be laid upon the floor.

*Exercise 12 (back-bending).*—Take a good standing poise. Place the hands at the hips, and bend backward from the waist, first letting the head fall backward, and then bend backward as far as possible without bending the knees, keeping the hips as nearly in position as possible. After holding the trunk in the bent position for a few seconds, slowly rise to the upright position, take a few breaths, and repeat the exercise three or four times. This exercise should always be taken slowly, and immediately after or before the preceding.

This exercise should always be preceded and followed by arm and leg movements, which will have the effect to relieve the strained feeling in the back which is nearly always experienced by persons who have not been accustomed to exercises of this sort.

#### PROGRAM FOR EXERCISE DURING FEBRUARY.

1. Take a good standing position, employing Exercise 1, explained in the January number.
2. Swaying, for one minute.
3. Keeping a good standing position, raise the arms first forward to reach position, then sidewise to yard position, lastly forward to stretch position. The movement should be made slowly for each position, moving first one arm, then the other arm, then alternating the two arms, finally moving both arms, counting for each movement, *one, two, three, four.*
4. Half-standing, foot-raising. Hold the raised foot in position two or three seconds. Repeat the exercise twenty times for each foot.
5. Forward bending. Repeat four times.
6. Backward bending. Repeat four times.
7. Arms sidewise, raise to yard position, slowly. Draw in the breath while the arms are being raised, and expel the breath while sinking.
8. Toe-standing, for one minute.

All of these exercises should be taken slowly, and the body should be kept in good poise all the time. If the muscles become weary during the exercise, a short rest may be taken at any point in the program. These exercises should be repeated faithfully every day, and with increasing vigor. By the end of the month, two or three times as much work can be done as we have indicated in the program.

# DRESS

## THE INJURIOUS EFFECTS OF WAIST CONSTRICTION.

NOT one woman in a hundred can be made to admit that her corset or waistbands are tight. When ex-postulated with, she instantly, by voluntary effort, draws in the figure at the waist to the smallest possible dimension, then gathers up a fold in her dress, and says, "Just see how loose my clothes are! I am well informed respecting the evils resulting from tight lacing, and would not injure myself in such a foolish manner." Notwithstanding this universal disclaimer, however, the writer is prepared to maintain the assertion that not one woman in a hundred among civilized American women dresses herself in such a manner as to allow room for chest expansion at the waist.

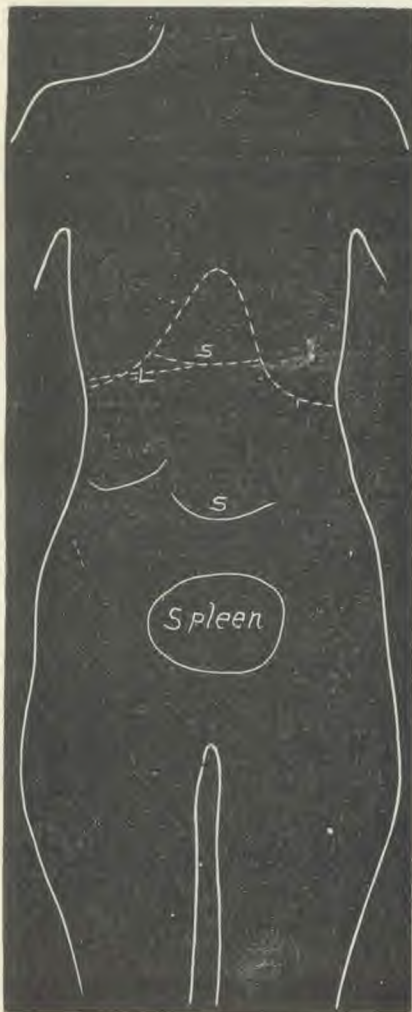


FIG. 1.

That portion of the body which lies beneath the waist line includes a number of the most important vital organs of the body. Here are found the liver, the stomach, the spleen, the pancreas, the kidneys, and a portion of the intestines. In addition, the largest mass of nerve matter to be found in connection with the sympathetic nervous system, the solar plexus and semi-lunar ganglia, are located just beneath this point. The relations of this nerve center are so important that it has been very aptly termed the "abdominal brain." It practically has charge of the nutritive processes of digestion, liver action, and absorption, and has also a very important influence upon breathing and heart action.

The effect of corset-wearing and the wearing of tight bands to which are attached heavy skirts, is to so compress the waist as to crowd liver, stomach, spleen, and kidneys down out of position. The consequences of such a displacement of the abdominal organs are by no means trivial. The writer has seen scores of cases in which women have been made chronic invalids, suffering from a great variety of nervous ailments which have baffled skilled specialists, the real cause of which was to be found in the disturbance of the abnormal relation of these important organs through corset-wearing or the constriction of tight bands bearing heavy skirts.

Some time ago, the author perfected an apparatus by means of which an exact tracing can be taken of the body in any position. Protected by a single thin garment or a sheet, the patient stands in the apparatus, and an exact outline is made. The engravings which accompany this article are facsimile reproductions of tracings obtained in this manner from a woman who had greatly injured herself by the wearing of corsets and tight skirt bands. Although she stoutly resisted the imputation that she had done herself harm in this way, the evidence was incontrovertible. The damage which had resulted in this case from improper dress, may be properly and easily comprehended by a glance at Fig. 1, a front profile obtained in this case. The dotted lines S and L, represent the lower borders of the stomach



and liver when in their proper positions. The solid lines S and L, indicate the point at which the lower border of these organs was found upon examination. In addition, a large, hard mass was found at the lower portion of the abdomen, the location of which is, indicated by the dotted line forming an ellipse. At first this was mistaken for a tumor, but as its location was found to be changed at every successive examination, further investigation disclosed the fact that it was the spleen, which had been driven out of its natural position under the ribs of the left side, and by the dragging influence of the skirt bands, had gotten so far away from home that it enjoyed the freedom of the whole abdominal cavity, and could be pushed about as readily as though it had no attachment to any particular spot.

The change in figure which had been produced by an unhealthful mode of dress, in this case, is better shown by reference to Fig. 2, the ugliness of which is very apparent when it is compared with the beautiful outlines of the perfect form shown in Fig. 1, page 12, of the January number of this journal.

The writer has made scores of tracings of this sort in which positions almost identical were found. Indeed, it is scarcely possible to find a woman accustomed to wearing the ordinary dress, whose figure is not more or less distorted, and in whom the internal organs are not more or less deranged as regards their position in the abdomen and pelvis. In one hundred consecutive cases investigated a few months since, derangements of this sort were found in ninety-six. In all of the latter the stomach was fallen out of place; the kidneys were loosened and displaced in thirty cases, and in twenty cases were so loosened from their natural position that they could be freely moved about. This position was sometimes found to exist in relation to both kidneys, although usually the right kidney alone was affected, owing to the fact that it is overlapped by the liver in such a manner that any displacement of the latter must force it down from its natural position.

The writer is satisfied that a large share of the nervousness from which American women suffer is directly traceable to the influence of their mode of dress upon the position of the stomach, liver, and bowels. A large share of cases of so-called spinal disease may be directly traceable to the reflex influence of disordered stomachs and livers. The so-called nervous headaches are directly traceable to this cause, although in many instances the disorder seems to be directly due to some nervous disturbance, as loss of sleep, over-taxation, mental worry, etc. The nervous disturbances, however, are only the exciting cause; the real cause is to be found in a morbid condition of the sympathetic nerve centers found in the abdominal cavity, which are affected directly or indirectly through disorders of the stomach, liver, and bowels as the result of improper dress.



FIG. 2.

#### DRESS REFORMERS.

WE do not believe in appealing to the stage for examples in either dress or morals, but it may be both interesting and profitable for some persons to know that many of the most noted actresses are thorough-going health reformers. Cora Tanner, Margaret Mather, Emma Juch, and numerous others, have publicly announced themselves as being both theoretically and practically in favor of the abolition of the corset and every garment which confines or restricts. According to good authority, Mrs. Browne-Potter and Miss Eastley never wore corsets in their

lives. Sarah Bernhardt wears only a flannel waist, while Modjeska wears a simple waist of chamois skin. If these women can safely appear before the public in the most conspicuous manner possible, without corsets, why cannot other women also believe themselves to be decently and gracefully clad without the aid of this instrument of torture? It is wholly a perverted taste which demands that the female figure shall be distorted into the abnormal shapes induced by corset-wearing and tight lacing.

# SOCIAL PURITY

## RELATION OF DIET TO PURITY.

OF the many links in the chain of influences which are helps or hindrances to a life of purity, the habitual diet is one of the most important. Nothing tends more effectually to keep the animal impulses in abeyance than a simple, non-stimulating dietary. It is a well-recognized fact that man's physical health and strength depend very largely upon the character of the food he eats; and it is no less true, although not so generally recognized, that his mental and moral disposition and character are largely influenced by his diet. The person whose nerves are over-stimulated and irritated, whose blood is excited and made feverish by the habitual use of condiments, pungent sauces, and tea and coffee, will not naturally possess the needed moral strength to resist successfully the temptations to impurity which may assail him. The descent from virtue to vice is a gradual one, not a sudden transition from one state to the other. When the animal instincts are excited by the habitual use of stimulating foods, the resisting power of the will is gradually undermined; little by little the conscience is silenced, and the lower instincts gain the ascendancy.

Condiments, and stimulating foods generally, are harmful not only in consequence of the immediate effects of their stimulating properties in exciting the lower nature, but through their deteriorating influence upon the general health. The use of indigestible food, or any habit in relation to health which results in the impairment of the integrity of the digestive organs, will tend in the direction of impurity, for the reason that any lowering of the vital tone of the body means lowered nerve tone; and lowered nerve tone means also, in most cases, lowered moral tone, and in all cases a tendency toward weakening of the moral nature. This tendency has been recognized by physicians in all ages. A sagacious physician of the last century once said, "Every sick man is a rascal." Dr. Abernethy, although a very wise physician, doubtless somewhat overdrew the picture in making this remark. Nevertheless, it cannot be doubted that ill health generally tends toward a

lessening of the strength of will and lowering of the moral tone, the particular direction in which this weakening may be manifested depending on the circumstances and surroundings of the invalid, as well as upon his natural mental or moral bias.

The influence of flesh foods in stimulating the animal instincts is too well understood and recognized to require enforcement by argument. The fruit-eating savage, although unrestricted by either civil or moral laws, is less impure in conduct than are multitudes of the meat-eating dwellers in civilized lands.

Prof. Alcott said that the purest poets are persons who use no animal food. The assertion of Prof. Alcott finds a strong confirmation in the experience of Lord Byron. Although the lofty genius of this strange man was fully matched by the grossness of his habits, he seems to have been not wholly without good aspirations; for at times he led, for periods of several months, a most correct and virtuous life. He was able to do this, however, only by adhering strictly to a diet the most abstemious in character, and from which all flesh food was rigidly excluded. During one of these lucid intervals, he wrote to his publisher, "I stick to Pythagoras,"—referring to his meager fare of bread and water, and total abstinence from flesh food, the use of which, he declared, gave him the disposition of a beast.

The feverish blood, the excitability of nerves and nerve centers, the contamination of the body with waste and excrementitious matters which result from the use of flesh food, are antagonistic to purity. Parents who encourage their children in the use of flesh foods, or who do not exclude such articles from the dietary of their children, are themselves to a considerable degree responsible for the departures from purity which are so often charged to the influence of companions, or to pure wantonness. A writer has well said, "Keep yourself from opportunities, and God will keep you from sin." A diet which tends to excessive excitement of brain and nerves, makes opportunities for impurity in children from which only a constant miracle can save them. This same principle

applies to older persons as well as to children.

Purity of mind is a condition quite incompatible with gluttonous habits in eating. The pages of history are crowded with facts which clearly show that the successive degeneracy of each of the nations which ruled the world began with luxuriousness in diet. Dante, in his picture of the infernal region, puts the glutton and the sensualist in the same circle. Plato insisted that all books which pictured gratification in eating and drinking should be banished.

The sacred Scriptures inculcate the same principle. Simplicity in habits of life and purity of character are everywhere associated. While leading the simple life of a shepherd lad, David developed those elements of character which fitted him to become the greatest among all the kings of Israel. John the Baptist found in the natural products of the wilderness, a bill of fare the simplicity of which comported perfectly with the purity of his divine mission; and by his forty days' fast in the wilderness, our Lord taught us a most important lesson respecting the necessity for bringing the appetite under full subjection.

A failure to control the appetite is one of the first steps in the direction of sensuality. The appetite must be trained to be the subject and not the master. This training must begin at a very early period of life. Unnatural appetites are much less often inherited than is generally supposed. Depraved appetites are most commonly the result of improper training in early childhood, perhaps we might more properly say, in early infancy. We have often been distressed, almost horrified, in fact, at the sight of a parent giving a child its first lesson in dietetic depravity. The mother would place in the mouth of the little one a bit of rare roast beef, a piece of bread covered with rich meat gravy, or potatoes well buttered and peppered. A young child has at

first no liking for such food, and turns away in disgust. It is only by repeated persuasions that the child can be induced to soil his lips with such unnatural diet. By and by, however, a perverse appetite is developed, and with the unnatural craving comes a dislike for those natural, wholesome, bland, and simple foods which the Creator gave to man for his bill of fare, and which nature supplies so bounteously.

A child should be trained to eat and relish whatever is best for it to eat, and to refrain from eating whatever is unwholesome. The question we so often hear at the dinner table, "Jamie or Mary, what would you like?" is a preliminary lesson in impurity. The sense of taste was given us by the Creator, not for mere animal enjoyment, but to enable us to distinguish between wholesome and unwholesome foods, and as an aid to good digestion. When it is divorced from this, its natural and physiological purpose, it becomes a source of mischief. To eat for the mere pleasure of eating is a sin against nature, and an abuse of a God-given faculty.

Self-control is the keynote to purity of conduct. Said Paul, "I keep my body under." He who will govern his appetite in accordance with nature's laws, will thereby gain a powerful advantage in the control of other animal instincts.

Simplicity in habits of eating, and the avoidance of all stimulating foods, are, with the exception of religion, the most powerful of all aids to purity of life, and in addition, are most potent correctives of impure tendencies when they are once developed. Talmage says that "many a man is trying to do by prayer what can only be done by correct diet." Certain it is that earnest prayer and pure diet together accomplish what would be fruitlessly attempted by either agency alone.

LOST WOMEN.—Has it ever occurred to you what a commentary upon our civilization are these lost women, and the attitude of society toward them? A little child strays from the home inclosure, and the whole community is on the alert to find the wanderer and restore it to its mother's arms. What rejoicing when it is found! What tearful sympathy! What heartiness of congratulation! There are no harsh comments upon poor, tired feet, be they ever so miry; no reprimand for the soiled and torn garments; no lack of kisses for the tear-stained face. But let the child be grown to womanhood, let her be led from it by the scourge of want—what happens then? Do

Christian men and women go in quest of her? Do they provide all possible help for her return? or if she returns of her own notion, do they receive her with such kindness and delicacy as to secure her against wandering again?—Far from it. At the first step she is denounced as lost—lost! Echo friends and relatives: "We disown you; don't ever come near to disgrace us." "Lost!" says society indifferently; "how bad these girls are!" And "Lost—irretrievably lost"—is the prompt verdict of conventional morality, while one and all unite in bolting every door between her and respectability. Ah, will not these lost ones be required at our hands hereafter?



**DANGER IN CHEAP TINWARE.**—According to recent chemical authorities, there is much danger in the use of the cheap tinware which is being sold about the country, and in which the coating of the iron is adulterated with very poisonous metals, particularly with antimony. When tin vessels are used as receptacles for food, only the very best of ware should be employed.

**DAY'S KIDNEY PAD.**—An ingenious druggist has been sufficiently inquisitive to dissect one of these wonderful disease-absorbing kidney pads, and finds it to be made of the following ingredients ground to a fine powder and mixed thoroughly: black cohosh; powd. gum benzoin; powd. gum guaiacum; juniper berries; queen of the meadow; digitalis leaves; oil of juniper. The reader can judge how much benefit a person would be likely to derive from wearing this mixture over the small of the back.

**ORANGE BLOSSOM.**—This much-advertised remedy is simply many common ingredients made into a mass with cocoa butter and wax. It is claimed to be a panacea for all the diseases to which women are particularly subject. According to *New Idea*, a reliable chemical journal, the constituents of Orange Blossom are as follows:—

Zinc sulphate,	1 dr.
Alum,	15 gr.
Cocoa butter,	3 dr.
White wax,	½ dr.
Oil sweet almonds	1 ½ dr.
Ext. henbane,	1 gr.

The alum, combining with mucus and other discharges, forms a parchment-like membrane which gives the charlatans who manufacture and handle this nostrum, by means of agents traveling from house to house throughout the country, an opportunity to take advantage of the ignorance of those whom they make their victims. They claim that this parchment-

like substance is diseased matter, which is brought away by the remedy. Whatever virtues this remedy possesses are due to the presence of sulphate of zinc and alum. The extract of henbane is, of course, an anodyne, but in no respect a curative. We have met a number of cases in which much mischief has been done by the use of this and similar remedies.

**PAPINE.**—This highly commended nostrum is purchased and used by large numbers of persons with the idea that it is a perfectly harmless preparation, whereas it is nothing more nor less than an opium mixture, in no respect different from thousands of similar mixtures sold under various delusive names. In each teaspoonful of the drug there is a grain of opium, or a full dose of this powerful narcotic. It is important that the public should be warned against the use of remedies so productive of mischief.

**CHLORIDE OF GOLD OPIUM CURE.**—According to the *Druggist's Circular*, the much advertised Double Chloride of Gold cure for drunkenness and the opium habit contains not a particle of gold. The following is said to be its composition:—

Chloride of ammonium,	1 gr.
Aloin,	2 gr.
Compound tincture of cinchona,	3 fl. oz.
Water sufficient to make	4 fl. oz.

A number of years ago we obtained a quantity of this nostrum, which was sold at the rate of fifteen dollars for an 8 oz. bottle full, and made a careful examination for gold. Not a particle of gold was found present. It is not at all likely that any person would be cured from either the alcohol or the opium habit by the use of this remedy, if it may be dignified by the name of a remedy; yet hundreds of persons have been deceived by the proprietor of this nostrum, and induced to pay fifteen dollars for what could be purchased at any drug-store for as many cents.

## ONE OF DR. HALL'S VICTIMS SPEAKS.

SOME of our readers thought we were rather hard on Dr. Hall in the articles which we published some months ago, exposing the fallacy of his claim. For their benefit, we quote the following from a Dr. Keith, whose opinion, while coinciding with those expressed in this journal, are evidently based on different facts. Probably Dr. Keith never saw the articles published in GOOD HEALTH. We quote from an article by Dr. Keith in *Health and Home* :—

“A few months ago I sent four dollars to A. Wilford Hall, Ph. D., LL. D., and all the rest of it, of New York, and expected to get some ‘wonderful discovery’ which had raised all the world out of its boots, so to speak, and something which would aid us in the cure of all diseases, as well as prevent all.

“The absolute knowledge which I received was the history of an ignorant man who had struggled along under the allopathic system of medication, and finally heard of the water-cure treatment; and having read the wonderful things which were being done by the water-cure folks, this dying Hall thought he too would be a water cure on his own account, and he went to work with a big injection of warm water into the bowels, and cured himself; and as he has remained well for forty years, he now sells the right of using this large injection of warm water to others, at four dollars a head.

“Just think of the gall which must have entered this Hall’s head as he penned a pamphlet giving the same knowledge which was given free to the readers of the *Hydropathic Encyclopedia* forty years ago (for this encyclopedia was published in 1850, and all the ‘complete ‘discovery’ can now be found in that work p. 51, vol. 4)! His ‘secret’ consists in selling the knowledge of this large injection to the people. Gall! It does not have to be gall in this case; it is spleen and liver thrown in, to make good weight. Yet this man is a philanthropist, and an LL. D!

“Among the cunning things which is accomplished by this Hall is the taking of a ‘sacred pledge of

honor,’ by all who are duped into purchasing the pamphlet, not to give away the secret.

“I thought I had seen this injection business somewhere before Hall’s time; I looked for it, and found that all his claims were absolutely without any foundation, unless, indeed, it could be proved that every one on this continent was so much in need of injection as to be forced to daily use it during the course of their natural lives, as Hall has had to do. So, of course, the ‘oath of honor’ would not be any more binding than if he sold me the right to use a cold bath each morning; and with just as much sense and far more actual benefit he could sell one the right to wash the body all over in cold water, as to sell the right to use this big injection of four quarts of water into the bowels each day. As for honor, it is tiresome to talk of honor to a prevaricator like Hall. But when he says he reasoned out the claims which appear in his pamphlet, and when he claims to be the favored one of ‘all earth’s teeming millions,’ then we say to Hall, LL. D.: My friend, you should remember the fate of Ananias and Sapphira, and be thankful the people you are telling these yarns to are not the apostles.

“His claim to the diuretic power of the injection was all forestalled by the hydropaths at the time he said he thought it out; and the idea of cleaning out the colon was advocated by Mary S. Gove Nichols, M. D., in one of the same volumes.

“But we do not care enough for this getter of money to bandy words with him as to the priority of his claim. To any one who is familiar with the writings of the older eclectics and the water-cure people, Hall’s claims are bosh. As long as he has an agent in every town who can sell a fifty-cent syringe and rake in a few dollars from the sick, Hall may think he is clever. To any one who can see the facts, Hall appears as a first-class fake. He wanted some money to publish the *Microcosm*, and he took this way to get it.”

POISONOUS BAKING-POWDERS.—The harmful character of alum and ammonia when employed in baking-powders, has been repeatedly demonstrated by careful experiments. According to the report of the Canadian Government, appearing in a recent issue of the *Scientific American*, alum is an exceedingly objectionable ingredient of baking-powders, and ammonia is certainly fully as objectionable. The paper

referred to gives the names of ninety-five different kinds of baking-powders which are now sold in the market, all of which contain both alum and ammonia. Indeed, it appears that of all the different brands of baking-powder now sold, only two are free from these harmful ingredients; hence we are doing these compounds no injustice in calling them poisonous mixtures, and warning the public against their use.

# GOOD HEALTH

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

## FOOD REFORM FANATICS.

VASTLY more harm has been done to the cause of dietetic reform by the vagaries of certain self-appointed teachers who have undertaken to instruct the public from time to time than by all its other enemies combined. The unscientific and senseless jargon which these pretenders thrust into the public prints, together with the air of authority assumed, is often calculated to deceive and mislead the ignorant. The intelligent and well informed, recognizing the wholly unauthentic character of the assertions made, disdain to notice them by way of reply, and consequently the most unfounded arguments, absurd statements, and ridiculous conclusions are often allowed to escape well-merited exposure and rebuke.

Some years ago, a Dr. Page, a vegetarian, advocated in this country the use of raw food, asserting that as cooking is one of the arts of civilization, it must be unnatural, and consequently harmful, evidently forgetting that the practice of wearing clothing is quite as artificial as that of cooking food, or at least the wearing of such clothing as is commonly used in civilized countries; so to be perfectly natural, we ought either to discard clothing altogether, or else to return to the skins of beasts, of which the garments of the primitive people of the early ages were composed.

Our attention has lately been called to the fact that quite a stir is being made in England by a man styling himself Emmet Densmore, M. D., who claims to be an American physician, by the advocacy of what he terms "the natural food of man," which according to the Densmore philosophy consists exclusively of fruits and nuts. It is claimed that since grains and vegetables and starchy foods in general require cooking to render them readily digestible, their use is not natural, and is harmful. It is asserted that bread is "the staff of death." The principal arguments offered are, first, that starch is not digested in the stom-

ach; and second, that starchy foods, such as grains and vegetables, are "loaded with earthy salts," and that the "decrepitude and stiffness of old age is the result of ossification caused by" the use of starchy foods, in consequence of the excessive proportion of salts which such food contains. The writer maintains that by the adoption of the diet which he recommends,—fruit and nuts,—or if this diet is found inconvenient or insufficient, by the addition of milk, cheese, and meat, life would be greatly prolonged, and many of the diseases to which human flesh is heir would be avoided. Flesh food is claimed to be an excellent food, while brown bread, peas, beans, and similar foods are considered worst of all possible foods. While these assertions seem too absurd to require a serious answer, it may be worth while to present some facts for the benefit of some of our readers who may be interested in dietetic reform, and may possibly be led into this error by a want of knowledge of scientific dietetics. The chief arguments presented, if bold assertions can be called arguments, are, 1. That starch is not a natural food and is difficult of digestion; 2. That the grains and other farinaceous foods contain more of the earthy salts than do any other foods, and so favor senility and premature ossification of the tissues.

First, as regards the digestion of starch. It is true that the gastric juice does not act upon starch, but it is equally true that the saliva, the first digestive fluid with which the food comes in contact, is extremely active in the conversion of starch into dextrine or sugar, and that this action upon the starch of the food continues after the food enters the stomach for a considerable length of time. But our philosopher seems to have fully lost sight of the fact that the stomach is not the only nor even the principal part of the digestive apparatus. The most important diges-

tive organ is the small intestine, which is some twenty-five feet in length. The stomach is now generally regarded by physiologists as rather an antechamber to the digestive apparatus. The pancreatic juice, the principal digestive agent of the small intestine, is extremely active in the digestion of starch. Starch is also digested by the intestinal juice. It certainly were a great waste of pains on the part of nature to provide three important digestive fluids for the purpose of digesting starch, if starch were not intended to be an important constituent of our daily fare.

Again the "doctor" (?) says, "To the vigorous physiological stomach, the digestion of fruits and nuts is comparatively easy, while the cereals, pulses, and the foods chiefly starch, undergo a protracted and laborious digestion, causing great strain upon the vital powers, and ending in a break-down of the nervous system."

This certainly is a very terrible outlook for starch eaters. Nevertheless, the fact exists that a large share of the natives of India, a country peopled with two hundred millions of human beings, and in addition some hundreds of millions of the natives of China, have for many thousands of years maintained existence and enjoyed remarkably robust health and great longevity, while subsisting chiefly upon rice, an article of food almost entirely composed of starch. Starch is one of the most easily digestible of all the food elements. Rice is of all foods the most easily digestible, occupying but one hour in the process of digestion, according to the observations of Dr. Beaumont, made upon the stomach of Alexis St. Martin; whereas fruits and nuts require from two to three hours for digestion, and lean beef from three hours to four and a quarter.

Now as to the second argument, namely, that the grains contain too large a proportion of salts. According to this new philosophy championed by Dr. Densmore and a Dr. Evans, "nuts and fruits contain of all foods the least amount of earthy matter. . . . Animal foods are placed second on the list, vegetables third, and cereals and pulses, that is, grains and such leguminous seeds as peas, beans, and lentils, are last and worst, as they are shown to contain the greatest amount of earthy matter when compared with all other human foods."

We are sure that few of our readers have so meager a knowledge of the principles of dietetics and the nature of different foods as not to be able to discover, at a glance, that these self-constituted teachers of dietetics are spinning their dietetic theories out of their unscientific craniums rather than basing them upon fact. The assertion is boldly made that fruits and nuts con-

tain the smallest proportion of earthy salts, while grains, peas, and beans contain the most, meat coming second, and vegetables third. Let us look at the facts. We have taken pains to carefully estimate the percentage of salts contained in a considerable number of food substances.

Taking for the basis of our calculations the tables of Pavy, Letheby, Smith, and other recognized authorities on food, and comparing the amount of salts with the total nutritive value of various food substances, we find the following to be the percentage of each, grouping the several classes of food substances as follows:—

GRAINS.

Bread,	2.7	per cent.
Wheat,	2.	"
Oatmeal,	3.5	"
Indian Meal,	2.	"
Rice,	.6	"
Average	2.16	"

VEGETABLES.

Potatoes,	2.8	per cent.
Turnips,	6.7	"
Parsnips,	5.5	"
Average,	5.	"

FRUITS.

Grapes,	1.8	per cent.
Blackberries,	3.	"
Cherries,	4.6	"
Apples,	2.3	"
Pears,	1.8	"
Raspberries,	3.6	"
Strawberries,	4.6	"
Plums,	3.3	"
Apricots,	4.3	"
Gooseberries,	3.3	"
Currants,	4.2	"
Bananas,	3.1	"
Average,	3.3	"

ANIMAL FOOD.

Milk,	5.7	per cent.
Eggs,	5.8	"
Cheese,	8.	"
Lean Beef,	18.2	"
Average,	9.4	"

A simple perusal of these tables will be sufficient to convince any one of the utter absurdity and groundlessness of the assertions made by Dr. Densmore. Instead of farinaceous foods, such as wheat, oats, rye, barley, Indian meal, rice, etc., containing the greatest proportion of earthy salts, we find the very opposite

to be proven. The average percentage of salts contained in the five grain preparations mentioned, bread, wheat, oatmeal, Indian meal, and rice, is 2.16 per cent, which is less than two thirds the average percentage of salts found in the very complete list which we have given of fruits in common use. The average of the three most commonly used vegetables, the potato, turnip, and parsnip, instead of being third in the list is found to be nearly double that of the average of the five grains, while the four animal foods which may be considered typical of all the foods belonging to this class,—milk, eggs, cheese, and lean beef,—are found to have a proportion of salts varying from more than double the amount found in the average grain, to more than nine times the amount found in wheat.

The few articles written by Drs. Densmore and Evans which have come to our notice are full of the

grossest absurdities. For example, it is stated that the banana is "about twice as rich in nitrogen as wheat, and quite equal to the pulses," whereas the amount of albuminous elements found in the banana is less than one half that found in wheat, only about one sixth the amount found in peas, and less than one seventh the amount in beans.

Some of our readers doubtless remember having witnessed when they were children the feat of some street-corner juggler who pretended to pull yards upon yards of ribbon, tape, and yarn out of his stomach. It would be far better for the cause of dietetic reform, and for these mushroom philosophers, if instead of spinning such ridiculous dietetic theories out of their dyspeptic stomachs they would devote a little time to the study of scientific dietetics before presuming to write and talk upon so important and practical an economic question.

M. PHILLIP, an eminent European physician, has established the fact that the symptoms of consumption are due to the absorption by the system of poisonous substances generated by the bacilli tuberculosis, the germ of consumption.

ALCOHOL AND INSANITY.—Dr. Kraft-Ebing, of the University of Vienna, asserts that alcohol is the cause of insanity in twenty per cent of all cases, and is an active cause in fully thirty per cent more, so that it plays a prominent part in the production of at least one half of all cases of this disease.

TOBACCO HYSTERIA.—A Parisian physician, M. Gilbert, recently presented before the medical society of Paris a man who had worked for some years in a tobacco factory, and who was suffering from tobacco hysteria. The patient had lost both sensation and power of motion in about one half of his body.

THE NICOTINE NUISANCE.—The editor of the *Canada Health Journal* is righteously indignant over the impudence with which the average smoker makes himself a nuisance on the city streets, puffing nicotine in the faces of the passers-by. We quite agree with him in saying that the smoker "has no right to do so, and should be pushed off the sidewalk, and at least made to take to the driveway with handcars and cycles. It is simply atrocious that the atmosphere of the most public thoroughfares should be thus fouled, to the great inconvenience, annoyance, and detriment of the majority of well-behaved citizens."

WORK OF THE MICROBES.—A Russian doctor claims to have discovered that diphtheria may be cured by inoculating the patient with the germs of erysipelas.

AN INGENIOUS DEVICE.—The Frenchman, always noted for his ingenuity, has recently capped the climax of inventions in a sanitary line, by devising a "nickel-in-the-slot" apparatus by which hot water is furnished upon the street corners to any one who will drop a five centimes piece (equivalent to an old-fashioned copper penny) into the slot, and push a button. Steaming hot water immediately issues from the faucet, and runs until nine quarts have been delivered. This is a great boon not only to hot-water drinkers, but to the cabmen of Paris, who make their passengers comfortable in cold weather by means of tin cans filled with hot water, placed at their feet.

MEN TEN FEET HIGH.—That men should have once lived who were ten feet or more in height, does not seem to be an unreasonable supposition, especially as men exist at the present day whose height is not much less than eight feet, or more than two feet above the present average height of the human race. A prehistoric cemetery has recently been discovered in Southern France, which is believed to have been used by members of the Aryan race. Bones which have been taken from it have proportions indicating that they must have belonged to men at least ten feet in stature. It is possible that the average height of the human race may have been, at some time, even greater than this.



CONSUMPTION GERMS.—According to careful estimates made by Bollinger, each consumptive expectorates daily about forty million microbes. At this rate, the ten thousand consumptives in New York City would expectorate each day about three hundred billion microbes, of which only eight hundred are required to produce consumption in a guinea pig.

AN ERROR ABOUT OYSTERS.—The majority of persons who make free use of oysters, doubtless suppose them to be very nutritious. As a matter of fact, they contain but a very small amount of nutriment. A quart of oysters contains no more nutriment than a quart of milk. Equally erroneous is the supposition that oysters aid digestion. These bivalves are scavengers, living upon the ooze and slime at the bottom of the sea. They are exceedingly inferior articles of food.

NARCOTICS AMONG ENGLISH WOMEN.—Dr. Norman Kerr, in a recent article in *Woman*, asserts that the use of narcotics is constantly increasing. He states that he has known ladies to accustom themselves to as much as three bottles of brandy a day. He has known chloral to be used to the extent of two ounces daily. In one instance he found a lady insensible from the effects of tea-drinking. She had consumed an entire pound of tea in a day. Some of his patients who had been addicted to the tobacco habit, he had known to smoke as many as thirty cigarettes per diem. It is probable that narcotics are in much more common use by women in this country than in England.

SELF-POISONING.—Sir Andrew Clark, an eminent English physician, has proved that the cause of impoverished blood and chlorosis so common in young girls, is disorders of digestion and poisoning by the absorption of fecal matter from the intestines. A recent experimenter in this country has shown that the alimentary canal is inhabited by thirty or more different species of microbes, or germs, each of which produces a poison peculiar to itself. In view of this fact, it is not necessary to emphasize the importance of maintaining, so far as possible, thorough cleanliness of the alimentary canal, and of cultivating such habits of life as will maintain in the highest degree of integrity the digestive organs, that the digestive fluids may be able to exercise their natural function, by which the growth of germs in the alimentary canal is prevented, and thus protect the system from poisons which would otherwise be generated by these microscopic organisms.

GLADSTONE NOT A SMOKER.—Some time ago a story acquired currency in the newspapers that Mr. Gladstone was a great smoker, and that in Parliament he smoked almost constantly. We are glad to learn that this is not true. As a matter of fact, Mr. Gladstone has an unconquerable aversion to tobacco smoke, and at one time would not allow the filthy weed to be used in his house.

GUM-CHEWING.—An original writer has summed up the objections to gum-chewing, on the score of health, as follows: 1. The habit is unnatural. Whatever is unnatural is abnormal and unhealthful. 2. It exhausts the salivary glands and wastes the saliva. 3. It carries into the stomach a large quantity of air, which is a source of discomfort, and often the cause of injury. 4. It enlarges, from overwork, the large muscles of mastication, which produces a disfigurement of the countenance. We presume that to the majority of those who chew gum, the last objection would be the one of greatest moment.

CHRISTIAN SCIENCE AS A CANCER-CURE.—Some years ago, a lady with whose case we were somewhat acquainted, was induced by enthusiastic friends to visit a "Christian scientist" in Chicago for treatment of cancer of the breast. The self-styled "professor of Christian science" proceeded to treat the disease by his method, assuring the lady that it would be cured, and urging her to forget its presence. She endeavored to forget, and patiently received the "mental treatment" administered, until she became discouraged and returned home, when her daughters found that the morbid growth had more than doubled in size. The so-called Christian scientist had not only failed to cure the disease, but had induced the poor woman to delay the employment of the proper measures until recovery was hopeless.

A similar case recently occurred in Jamestown, N. Y. On the patient's death, a coroner's jury was impaneled, and gave the following verdict, which should be a warning to "Christian science" doctors: "Mrs. Barrows came to her death from cancer of the breast, on the 8th of May. We believe that contributory to this death was the culpable negligence of Mrs. M. J. Smith and Mrs. E. G. Lovejoy, who were advised of the nature of the fatal malady with which deceased was suffering, and failed to resort to or advise treatment by any of the methods known to medical science. We further believe that W. A. Barrows was also negligent of his duty in not securing medical treatment for his wife when there was reason for believing that she was in need of such treatment."



A DOCTOR'S CHATS HIS PATIENTS  
WITH

THE BEEF-TEA DELUSION.

WE are often asked whether we recommend beef tea. We are glad to take this occasion to say that we neither use it nor prescribe it. It is now many years since we have made a practice of recommending beef tea. More than ten years ago, Prof. Austin Flint, the great New York physician, declared that thousands of persons had been starved to death on beef tea. Dr. Ward, in the *American Lancet*, recently gave the following formula for making beef tea, which we are sure our readers will peruse with interest:—

“We take a pound of finely cut beef, and pour a pint of cold water on it, and let it stand two hours, —while we write about it. The water is not nearly sufficient to cover the beef, but with occasional agitation, we get at the essence. At the end of two hours we find the meat surrounded by a reddish-colored liquid. Put a little of this fluid into a test tube, and hold it in the flame of a spirit lamp. You see it coagulates to the extent of one fourth, perhaps. What is that? Well, never mind now; we are going to make some beef tea. Now we proceed to boil the whole. Length of time is not stated, and it does not make much difference so long as the water holds out. Now ‘strain and add sufficient water to make a pint.’ You perceive that it is too strong, and has to be diluted.

“Let us take a little of this concentrated essence in a test-tube and examine it. Here is a translucent fluid with a bland taste, a neutral reaction, and a

slight odor of beef. By closer inspection, you observe little fine particles of sediment slowly settling. This, Pavy says, should be stirred up and given with the tea; but as it is only particles of coagula which have skipped through the strainer, let us have it out. If part of it ought to come out, it all should. So we will filter this liquid, and you observe we have a limpid almost colorless fluid left, and a slight deposit on the filter. What is it? We shall see shortly. Now take a little of this liquid in a test-tube, and drop a few drops of nitric acid into it. There is no precipitate formed, so we know that there is no albumen or fibrin in it. What is in it? Well, there is a little saline matter, and—a world of disappointment to any one who tries to sustain life with it. That is about all. Common well-water containing the average quantity of bacteria is more nourishing.

“Thousands of sick people have been starved to death on this diet, and I want to enter my solemn protest against it before it is everlastingly too late.”

As Dr. Ward correctly says, good milk is always preferable to beef tea. Milk is nourishing, while beef tea is simply stimulating. It contains only the waste matters from the flesh of the animal, excrementitious substances which would have been eliminated through the kidneys and skin of the animal if it had lived long enough. What is said of beef tea is equally true of the various extracts of beef, beef essences, etc., which are sold in the market.

**GERMS AND VENTILATION.**—Dr. Stern, an eminent German physician, has been investigating the relation of ventilation to the number of germs to be found in the air. Ventilation, to be effective in removing germs from the air, must be so rapid as to change the air of a room six or seven times an hour. Surprising as it may seem, Dr. Stern found that allowing the air to become perfectly still so that the

germs might settle, was one of the most excellent means of rendering it practically free from germs. According to his observation, all the germs in the air of a room will settle to the floor in the course of an hour and a half, if the room is closed so that the air is not kept in motion. Lighter particles, such as wool, cotton fibers, etc., require a longer time for settling.

**OINTMENT FOR CHAPPED HANDS.**—A medical journal recommends the following: Menthol, fifteen grains; salol, thirty grains; olive oil, one half dram; lanolin or vaseline, one and one half ounces. This application is said to relieve pain at once, and to encourage rapid healing of the tissues.

**POISON IVY AND SUMACH.**—Poisoning from ivy and sumach is not very likely to occur at this season of the year, but to be forewarned is to be forearmed, and so our readers may be benefited by a knowledge of the botanical fact that there are two species of ivy, the three-leaved and the five-leaved. The three-leaved variety is poisonous; the five-leaved, harmless. Poison sumach has white berries, but the variety of sumach which bears red berries is harmless.

**SUGAR IN THE BODY.**—The wide-spread existence of sugar, or sugar-like substances, in the body, is a remarkable physiological fact. The liver is continually making, and doling out to the body, sugar from the liver starch or glycogen which it contains. There is a substance in the muscles known as muscle sugar, and a recent chemist has discovered that the action of a two-per-cent solution of sulphuric acid upon the brain substances, produces a sugar identical with sugar of milk. It must not be concluded from this fact, however, that sugar is an important constituent of the brain. The starch of which grains and vegetable foods are chiefly composed is wholly converted into sugar in the process of digestion, so that the supply of this saccharine element is ample without its liberal use as an addition to ordinary articles of diet.

**EATING AIR.**—The natives of Hindostan say, when they see a man going out to take a walk, "He goes forth *eating air*." This mode of expression seems to be as old as the Hindoostanee language. This is what we would commend for our correspondent who wants to know how to make weak lungs strong: Walk. Take a walk every day in the open air. Rain or shine, walk out of doors, properly protected, of course, according to the requirements of the weather. The gypsies are said to have a fashion of "eating air," which consists in inhaling the lungs as full as possible, then beating the chest as long as the breath can be held. This practice is probably beneficial by distending the air-cells to the utmost capacity. It should not be employed violently, however, as the effect of too violent percussion of the chest, when distended, might be to overstretch the air-cells.

**KOCH'S REMEDY FOR CONSUMPTION.**—We have obtained direct from Berlin a supply of this remedy, sufficient for the treatment of several hundred patients. We have begun its use, having several patients already under treatment, and in the course of a few weeks shall be able to answer definitely the many inquiries we are receiving from various quarters, respecting the value of this remedy which has created so much excitement in all parts of the civilized world. The patients now under treatment are apparently being benefited by it.

**HOT-WATER DRINKING IN CONSUMPTION.**—The tendency to profuse perspiration, which is a very frequent symptom in pulmonary tuberculosis, or consumption, leads a correspondent to ask whether we would recommend hot-water drinking for cases of consumption. In reply, we have to say that hot-water drinking is not contra-indicated by the disposition to profuse perspiration. On the contrary, the loss of so large a quantity of fluid through the kidneys renders the free use of water, and especially hot water, of the greatest importance. The profuse perspiration, although commonly regarded as a serious symptom and very exhausting in its effect, is really a curative effort on the part of nature, the purpose of which is to remove from the system the poison which is generated by the germs of this disease. This poison is chiefly removed through the kidneys by copious water drinking, and its removal through the kidneys may be facilitated, when it is necessary that an increased quantity of water should be taken in order to maintain the former volume of the blood. The exhaustion which follows the profuse night-sweats is due to the diminished volume of the blood, as a result of which the heart's activity is lessened and the organ weakened. By simply increasing the volume of the blood by water drinking, the heart's action will be increased in vigor, and the feeling of depression and exhaustion will be promptly removed. Hot water is better than cold water for the accomplishment of this purpose. A person suffering from consumption should take from three to six glasses of water daily.

Hot-water drinking also facilitates the assimilation of food,—a matter of great consequence in cases of consumption. When there is a tendency to emaciation, the amount of food taken should be increased to the greatest amount possible without over-taxing the digestive organs. Hot-water drinking not only aids digestion, but also aids in the removal of waste matters from the tissues, and their elimination through the kidneys and other excretory organs.

**MOUTH-BREATHING.**—We are often asked to explain the cause of mouth-breathing, and to recommend a remedy. Mouth-breathing, in children as well as in older persons, is almost invariably the result of nasal catarrh. Young children who suffer in this way often have enlarged tonsils and almost invariably have, in addition, at the upper and back part of the mouth or the pharynx, growths known as vegetations. This is a condition which should not be neglected, as it often leads to loss of hearing, serious impairment of the voice, and disfigurement of the features. If a child is found to be suffering from nasal and pharyngeal catarrh, do not resort to the patent nostrums recommended for this difficulty, but place it under the care of a competent specialist. A competent specialist will not be found among those who advertise in newspapers, or in the hand-bills sent about from house to house.

**THE SIZE OF AN INFANT'S STOMACH.**—There has been a great lack of information as regards the size of an infant's stomach. Mothers, particularly young mothers, are often at a great loss to know how much food a child should take, and whether or not it is taking a proper amount. In practice, the usual custom is to feed a child as much as it can be induced to take, as frequently as it will accept of it. Dr. H. L. Emmet has recently been making some observations upon this subject, measuring with great care the stomachs of children in autopsies. The conclusions drawn from over one hundred and forty measurements of this sort, are summed up as follows:—

The capacity of an infant's stomach at birth is about one ounce. Increasing in size at the rate of an ounce a month for the first three months, its capacity is then four ounces. After that it increases more slowly, for the next four months at the rate of half an ounce a month. From eight to fourteen months it increases at the rate of a third of an ounce, when the child is a year old attaining a capacity of about eight ounces.

From these facts it will be easy for any one to estimate the probable capacity of a child's stomach at any time from birth to fourteen months of age.

**REMEDY FOR BLACKHEADS, PIMPLES, ETC.**—Many persons are troubled with what they suppose to be worms of the skin. These so-called worms are little masses of fat which accumulate in the obstructed oil glands of the skin. They are properly known as comedones. It is probable that the obstruction of these glands is in part due to the excessive hardness of the sebaceous matter which is naturally fluid at

the temperature of the skin. When one of these obstructed glands is squeezed, a little mass of fat is forced out through the opening of the gland, and thus is folded into a form which resembles that of a small grub. The small amount of dirt which has accumulated on the outer end gives it the appearance of a blackhead. This deceptive appearance has given rise to the supposition that the skin is sometimes inhabited by worms. The following mixture is recommended by a reliable medical journal as an excellent remedy for cases of this kind: Sulphuric ether, 1 oz.; carbonate ammonia, 1 dr.; boracic acid, 20 gr.; water to make 16 dr.

**NERVOUS HEADACHE.**—A score of querists ask: "What is the cause and what is the cure of nervous headache?"

The term nervous headache is applied to that form of headache in which the pain is usually confined to one side of the head, or at least begins in one side of the head. Very commonly the starting point is one eye, or the eyebrow, the pain passing from the side first affected to the opposite side of the head, after a few hours, or extending to all parts of the head while retaining its hold upon the point first attacked. Many years ago we became satisfied that this form of headache has its origin in a disordered condition of the stomach. Within a few years, the researches of Bouchard and Glenard, of France, have shown very conclusively that this particular form of headache is due to that condition of the stomach known as dilatation, in which the walls of the stomach are relaxed, and its digestive power greatly weakened, so that ptomaines or poisonous substances are formed by the action of microbes, or germs, upon the food, which being absorbed, affect the nervous system in the manner which gives rise to the symptoms commonly termed nervous sick-headache, or migraine. Sick-headache, then, is simply a condition of poisoning.

As regards a proper remedy, in many cases nothing better can be done than to mitigate the sufferings of the patient during the attack. This may best be done by thoroughly evacuating the bowels by means of a large enema, if necessary employing also a saline laxative, or a draught of some mineral water. The patient should fast, and drink copiously of hot water, taking at least from half a glassful to a glassful every hour, and should have hot applications to the affected portion of the head, to the spine, and over the stomach. Sometimes an application of heat and cold to the spine will be found most serviceable. In a few cases, the application of cold to the head is preferable to fomentations.

## ANSWERS TO CORRESPONDENTS.

USE OF PANCROBILIN.—A. V. L., Minn., asks: "Will harm be liable to result from the use of pancrobilin previous to inunction of oils? 2. Is there possibility of danger from inexperienced massage, if the patient be suffering from extreme nervous exhaustion, emaciation, and atrophy of muscles?"

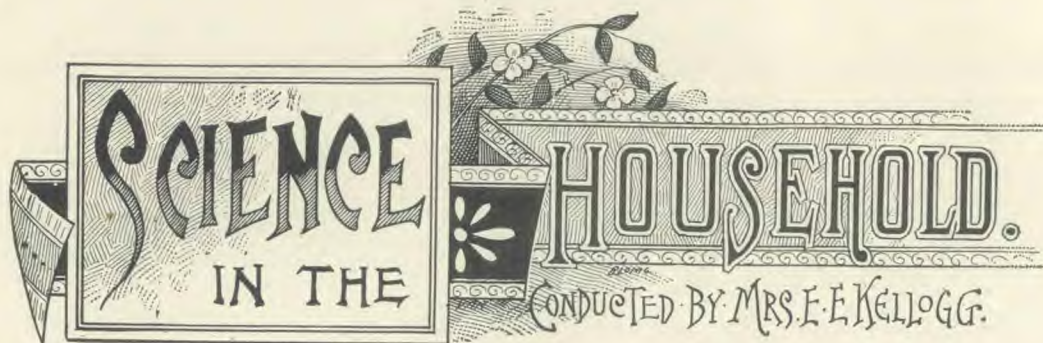
*Ans.*—1. We do not imagine that any particular harm would result from the use of pancrobilin. 2. There is danger in the employment of massage, if applied by an inexperienced or unskillful person. An overdose of massage is liable to do harm as well as an overdose of medicine. This is especially true in such cases as those mentioned.

OIL OF TAR—GUM—GARGET IN COWS, Etc.—D. B. V., Mich., asks: "1. Is oil of tar injurious to a person taking it for a cough? 2. Is it of any value? 3. Is it of any benefit to a dyspeptic person to chew gum after eating? 4. If so, what kind of gum is most healthful? 5. Do you know of a cure for garget in cows? I have given scoke root, saltpeter, and aconite, and it does no good. 6. Have you a cook-book called 'Healthful Cookery'?"

*Ans.*—1. Employed in ordinary doses, oil of tar would not be likely to do any harm. 2. It may have a slight value in some cases. Certainly its value is not very great, especially when compared with such remedies as the inhalation of warm vapor, the application of moist compresses to the chest, fomentations to the chest, and hot-water drinking. 3. A dyspeptic person who had forgotten to chew his food while eating it, might possibly be slightly benefited by chewing gum and swallowing the saliva, after eating. However, it is far better to insalivate the food while it is being chewed. 4. We recommend neither gum nor gum-chewing. 5. Garget is a disease of the udder of cows, in which there is inflammation and sometimes hardening of the tissues. The cow should be made to lie down as much as possible, and hot fomentations or poultices should be applied to the udder. She should be carefully milked every two or three hours. If the difficulty does not yield to simple treatment, a good veterinary surgeon should be employed. Soke root is a remedy which enjoys some reputation, but we doubt if it is of any great value. 6. Mrs. Kellogg's book, entitled "Scientific Cookery," is being pushed to completion as rapidly as possible. The manuscript has been completed for some time, but the preparation of the engravings for the work and the printer's work require some time.

EFFECTS OF LA GRIPPE—LOISETTE'S MEMORY SYSTEM.—E. M., Can., inquires: "1. Can you recommend treatment for paralysis of the lower bowel, the effect of *la grippe*? 2. What is your opinion of Prof. Loissette's 'art of never forgetting'?"

*Ans.*—1. Constipation due to inactivity of the lower bowel, is generally one of the most obstinate forms of this disorder. A number of efficacious remedies must be tried in succession, in many cases, before relief is obtained. The following are useful suggestions, though all are not to be employed at the same time, of course. Some are to be employed habitually, others to be tried in succession: (1) Have a regular hour for moving the bowels, preferably within half an hour after breakfast, or immediately upon rising in the morning. Whenever a desire for stool occurs, never neglect to attend to the matter promptly, even for a single moment. (2) Twice a week take a large enema, or a colocyther, for the purpose of washing the lower bowel in a thorough manner. (3) At the time for the bowels to move, inject a small quantity of cold water, say one half pint. (4) If the cold water alone is not sufficiently stimulating, add two teaspoonfuls of glycerine to four of cold water, and use it instead of the half pint of cold water. The quantity of glycerine may be increased, if necessary. (5) In some cases the use of cold water at night, just before retiring, is efficacious. This measure may be employed in connection with cold water, or glycerine and water, after breakfast. (6) Glycerine suppositories are excellent in these cases. (7) A glass of cold water drunk just before breakfast is frequently helpful. (8) A moist abdominal bandage worn over night, and covered well with dry flannel so as to prevent chilliness, is a helpful measure. (9) The diet should consist of coarse grains, abundance of fruits, and if the stomach will tolerate it, coarse vegetables. Meats, butter, and fats in general should be avoided. Milk and cream may be allowed in moderation. 2. There is no system of art which can be made to serve as a substitute for natural memory. The "memory system" which Prof. Loissette professes to have originated, is practically a compilation of various systems, and contains many excellent points. Most persons who become acquainted with it are disappointed in it, probably because they expect too much. The principal value of Prof. Loissette's system is that in the study of it one must train his memory, and the memory training is what benefits him, if he receives any benefit at all.



### THE CARE OF TABLE LINEN.

MUCH of the attractiveness of the table depends upon the linen used; if this is not well cared for, the finest table-ware cannot make up for its defects.

Stains upon table linen made by acids and vinegar may be removed by simply washing in clear water; berry stains are easily taken out by pouring boiling water over them; peach stains are best removed by soaking for some time in cold water, and then washing with soap before allowing warm water to touch them. Hot chlorine water will remove fruit stains and vegetable colors. All stains should be removed as soon as possible after being made, and always before putting the linen into the wash.

Housekeepers should remember that hard rubbing is the worst wear which table linen can receive. If soaked over night, a gentle squeezing will usually be quite sufficient to remove all soil; or if a little borax (a handful to ten gallons of water), or household ammonia (two teaspoonfuls to a pail of water) be added, two or three hours' soaking will suffice. Care must also be taken in hanging and fastening the article properly upon the line. Fold the cloth over the line six or eight inches at least, and in such a manner as to keep the thread of the cloth straight, and fasten with three or more clothes-pins. Table linen is often sadly frayed at the corners by being pinned so that all the strain comes at that point, and if left to whip in the wind, is soon ruined. Only the merest trifle of starch, if any, should ever be used for table linen.

The linen should be taken from the line while still damp, folded evenly, lengthwise, with the selvages together, then folded lengthwise again, rolled tightly,

and wrapped in damp towels so that the outside will not become dry before being ironed, which should be the same day. The irons for this purpose should be heavy, and as hot as possible without danger of scorching, and the board should be well padded, with several thicknesses of flannel underneath. Iron the linen in single folds, keeping a damp cloth over portions which will not be immediately reached. When the entire surface has been ironed, fold evenly lengthwise, and with the selvage edges toward the ironer, again go over the entire upper side; then fold the just completed portion inside, iron again, and so continue until the whole is ironed and folded. Both napkins and table-cloths should be ironed in this way. They should be thoroughly dried with the iron, and well aired before being laid away.

Colored table linen should be washed in tepid water containing a little powdered borax, which serves to set the color. Very little, if any, soap should be used. Rinse in tepid water containing a small quantity of boiled starch; dry in the shade, and iron, while yet damp.

Table linen should be carefully darned at once when it begins to wear and become thin. It may thus be preserved for a long time. When new, it should be washed before being made up, and the threads raveled or drawn, so as to make the ends exactly straight. Napkins should be washed before being cut apart. When not required for regular use, table linen should be folded loosely and laid away without ironing, in some place where it will not be subjected to pressure. When needed, it can be quickly dampened and ironed.

Don't waste the little pieces of soap. Have a good-sized bottle with a big mouth standing in some convenient place, and drop them into it. Add ammonia, saltpeter, and warm water, in about the propor-

tion of a teaspoonful of each of the former and a quart of the latter to each pint of the soap, and there will be a mixture excellent for cleaning paint, taking grease from clothing, as well as for many similar purposes.

## SEASONABLE RECIPES.

**CORN COFFEE.**—Shell common field corn, and brown in the oven as brown as possible without burning. Grind coarsely, and prepare for the table in the same way as ordinary coffee. With the addition of cream and sugar, or cream only, it makes a delicious beverage, and an excellent substitute for coffee.

**PRUNE BUTTER.**—Remove the stones from sweet California prunes, and cook, if dry and hard, in three parts of water to one of prunes; if quite moist, a little less water will be sufficient. When well done, rub through a colander to remove the skins. No sugar is necessary. If the pulp is too thin when cold, put into a covered earthen pudding-dish, set in a pan of hot water, and place in a moderate oven until it has become thickened to the proper consistency.

**BAKED APPLE SAUCE.**—Pare, core, and quarter apples to fill an earthen crock or deep pudding-dish.

Care must be taken to use apples of the same degree of hardness, and that the pieces are of the same size, that there may be no variation in cooking. For two quarts of fruit thus prepared, add a cup of sugar, if the apples are very tart, and a cup of water. Cover closely, and bake in a moderate oven several hours, or until of a dark red color.

**WHOLE-WHEAT PUFFS.**—One cup of thin sweet cream, one half cup of ice water, and two cups of wheat-berry flour (manufactured by Lockport mills, Lockport, N. Y.). Beat the material well together, and set the dish containing it upon ice for an hour or more before using. When needed, beat the mixture thoroughly for five or ten minutes, then turn into heated gem irons, and bake in a rather quick oven. The result will be a most deliciously light and palatable bread.

**CHEERFUL KITCHENS.**—If we would look for ready hands and willing hearts in our kitchens, we should make them pleasant and inviting for those who literally bear the "burden and heat of the day" in this department of our homes where, emphatically, "woman's work is never done." We should no longer be satisfied to locate our kitchens in the most undesirable corner of the house. We should demand ample light,—sunshine, if possible,—and justly, too; for the very light itself is inspiring to the worker, bringing out a bright touch of color here and there, a pretty curtain, or a row of attractive ware upon the dresser. It will stir up cheer and breed content in the minds of those whose lot is cast in this work-a-day room.—*Chautauquan.*

ALL bed-coverings ought to be as light as is consistent with warmth, and therefore woolen blankets are far more healthful than the ordinary heavy comforter, which admits of no ventilation, but absorbs and retains the exhalations from the body. Blankets can be washed often, while comforters cannot, unless taken entirely to pieces. In regard to the airing of the bedding and sleeping-room, the housewife cannot be too particular. Choosing bright, sunny days, mattresses, pillows, and each separate article of bedding should be turned out-of-doors several times each week.

To attach labels to tin, use a saturated solution of gum tragacanth in water.

AN exchange gives the following instructions for keeping flannels from shrinking: Add three tablespoonfuls of turpentine and one of spirits of hartshorn to one pound of potash soap when it is cooling, after having been boiled in sufficient water to form a jelly. Use the soap thus prepared for washing flannels, rinsing very carefully in cold water until the soap is all out. Where there are delicate colors which may run, let the last rinsing be in salted water. Wring as dry as possible, and fold away between sheets so that a thickness of cotton will come next each layer of flannel, and when nearly dry smooth with a warm iron.

A WRITER in the *Housekeeper* says: "When making light bread, if the bread pans are placed in a tub of boiling water, with something under them to lift them a little above the water, and the tub covered to prevent the steam from escaping, one's bread will rise quickly and be very nice."

To remove paint splashes upon the window-panes, use a hot solution of soda and a soft flannel.

Many people seem to be ashamed to be thought economical; it is because they confound the two things, economy and parsimony. Economy avoids all waste and extravagance, applying money to the best possible advantage. Parsimony involves meanness of spirit and a sordid mode of living, and is a vice. Between the two stands frugality, a happy medium.—*Sel.*

## LITERARY NOTICES.

"THE TONGA ISLANDS, AND OTHER GROUPS," 160 pp. Cloth, illustrated. Pacific Press Publishing Co., Oakland, Cal. This is a worthy addition to the Young People's Library issued by the above house, being another of the interesting little books by Miss Emma H. Adams, which so pleasantly combine entertainment and instruction for young readers.

THE columns of the *Kindergarten* for February are brimming with helpfulness for the mother as well as for all educators of children. It is the one organ, we believe, devoted exclusively to this great work in this country, and is the official medium of the Kindergarten Department of the National Educational Association. Alice B. Stockham and Co., Chicago.

THE *Western Rural and American Stockman* is one of the oldest and ablest farm journals published in this country, and is identified with the well-being of the farmer, his family, and indeed all laboring classes, as its vigorous and continuous championship of their several interests conclusively proves. It is also an admirable fireside companion. Address Milton George, 158 Clark St., Chicago.

*St. Nicholas* for February is bright and gay with illustration and letter-press. There are admirable stories, lovely poems, and irresistible jingles, besides other matter in great variety. Surely no one, young or old, could fail of being both amused and interested by the piquant ten-year-old who "climbed" the Pyramids, and in her own funny way wrote up her travels. The Century Publishing Co., New York.

"NATURE'S WONDER WORKERS," by Kate R. Lovell, Cassell Publishing Co., New York. In this book the author's aim is to interest the reader in what are called the "useless insects." In addition to its being an undoubted authority on entomology, so far as it goes, she has made an admirable book to put into the hands of the young, to teach them that the most despised creatures that cross their path have a use in the world, and should not be wantonly destroyed.

AMONG the rich and numerous illustrations of *Scribner* for February, is a series of interesting portraits of African explorers; also, artistic reproductions of paintings and sculpture of the Neapolitan school. In "About Africa" J. Scott Keltie gives an

admirable review of African exploration, from Livingstone to Stanley, with clear and entertaining statement of the part each explorer bore in changing the map of Africa. The "Japonica" papers, by Sir Edwin Arnold, are continued, embellished as usual by Robert Blum's picturesque drawings. Much other well-selected matter forms agreeable variety. Charles Scribner's Sons, New York.

THE *Woman's Tribune*, edited and published weekly by Clara Bewick Colby, Beatrice, Neb. We welcome to our table this old and valued exchange. A woman's paper throughout, edited, published, and managed by a woman, with women only as employees. Bright and readable, it is also deeply in earnest in trying everywhere to advance the interests of the sex. May woman's grateful recognition of this insure the paper a long subscription list.

"ANTHROPOMETRY AND PHYSICAL EXAMINATION," by Jay W. Seaver, M. D. Published by the author. Price, \$1.50. Sold by Coop and Boms, Providence, R. I. Not every book of to-day can give so good and sufficient a reason for its existence. The burden of the present general depletion of vitality throughout our country evidently rests heavily upon the eminent author of this work; and with a sense of the urgency of some immediate provision, artificial though it be, for its increase, he has formulated with conscientious painstaking, a system of intelligent and competent instruction in physical exercise. The book coming from its high source, speaks as one having authority, and will undoubtedly take foremost rank as a text-book upon this subject.

THE following represents but a small portion of the contents of the February *Chautauquan*: Practical Talks on Writing English, Part I., by Professor William Minto, M. A.; British India, by R. S. Dix; The Religious History of England, V., by Professor George P. Fisher; England after the Norman Conquest, Part II., by Sarah Orne Jewett; A Peasant Striker of the Fourteenth Century, by Charles M. Andrews; Woman's Council Table: A Symposium—Domestic Service by Julia Ward Howe, Emily Huntington Miller, Mary Hartwell Catherwood, Harriet Prescott Spofford, Olive Thorne Miller, Mary A. Livermore; Women's Colleges at Oxford, by Emily F. Wheeler. The *Chautauquan*, Meadville, Pa.



## PUBLISHERS' DEPARTMENT.

JUST as this journal goes to press, the first number of the *Medical Missionary* is also in press. An edition of over ten thousand copies of the first number is being printed. Everybody who is interested in medical missionary work at home or in foreign lands, and who would like to assist in establishing work of this kind upon a more liberal basis, will be interested in the *Medical Missionary*.

\* \*

SUCCESS WITH "GOOD HEALTH."—A number of canvassers who recently started out taking subscriptions for GOOD HEALTH, and doing medical missionary work at the same time, gave the following as the report of the first two days' work: Ten members of the class worked in the aggregate twenty-five hours, making seventy-five missionary visits, besides taking twenty-four orders for GOOD HEALTH and thirty-six for the *Medical Missionary*.

These canvassers had had a short course of instruction by an experienced general agent, and as the result met with first-class success from the beginning. There are thousands of others who can go and do likewise. GOOD HEALTH ought to be in every family in the United States. Are there not several hundred young men and women who see this journal, who would like to spend a few weeks or months in placing it before the people? The new features which this journal offers for 1891 are exceedingly attractive. The journal furnishes, every month, information which cannot be obtained elsewhere, and information which can be received without many grains of allowance for error, as the greatest possible pains are taken to avoid the publication of a single fact which has not the best of scientific evidence for its foundation.

\* \*

THE GOOD HEALTH CANVISSERS' SCHOOL.—The Good Health Publishing Company has made arrangements to organize a Canvassers' School for the education of persons who wish to engage in the sale of the health publications of this company. This school will be so conducted as to be a source of personal benefit to every one who takes the course, in addition to the preparation for canvassing work which it will give him. The daily program will consist of the following exercises:—

1. A memory drill, in which the best methods of memorizing will be taught, and memory disciplining exercises given.
2. A study of the subject matter of the books to be handled.
3. Practice in various chemical experiments, etc., useful in illustrating the subject matter of the books, and necessary for a thorough understanding of it.
4. A physical culture drill, the purpose of which will be to improve the health of the agent, and to give him a dignified and impressive bearing.
5. Entertaining and instructive lectures illustrated by charts, experiments, and stereopticon views.
6. Instruction in how to make a success of the book business.

The book business has really come to be a profession; and to insure success, it is as necessary to be studied as is medicine, law, teaching, or any other profession, and any person of ordinary ability who will take a thorough course of instruction in this work, cannot fail to succeed. The failure of most agents is due not to lack of natural ability, but to want of knowledge or instruction.

Young men and women of ability are wanted to attend this school. Splendid fields are open for at least five hundred agents who are qualified to handle these works.

The publishers have engaged to assist in conducting the school, Mr. Harry W. Smith, a gentleman who has marked ability for this kind of work, and who has had a large and very successful experience. Mr. Smith undertakes to say that every person of ordinary ability and intelligence who will take this course of training, *can be, and will be, made to succeed.*

The school for canvassers will open about March 1. Those who are ready to engage in the work before that time should write for information, as some special courses of instruction will be held in different parts of the country before that date.

For further particulars, address the Good Health Pub. Co., Battle Creek, Mich.

\* \*

WANTED.—Agents in all parts of the United States, to sell Dr. Kellogg's popular works, "Home Hand-book of Rational Medicine," "Ladies' Guide in Health and Disease," "Man, the Masterpiece," and other fast-selling books. One agent sold and delivered, in one year, nineteen hundred copies of a \$4.50 book. The same agent obtained fifty-two orders for the book in one day, and delivered every one of them a few days later. An agent cleared, last summer, \$750 in selling one of these books, in two months' time. No more useful works are offered for sale, and there are few books which sell so readily when presented by agents who have been properly trained.

\* \*

THE "Grand Old Man," Mr. Gladstone, has finally, though with great reluctance, given up the idea of an American tour. His reasons are increasing years, the infirmities of age and the disinclination of an old man to travel. But myriad admirers of the great Englishman in this country will not accept his refusal. They rightly represent that so luxurious and complete are our methods of travel that a man of his advanced age would find none of the discomforts which the ex-Premier has so often experienced in his own land. Pullman Palace Cars and the through Dining-Car Service now in effect on the Union and Southern Pacific, make the trip across the continent one of perfect ease, comfort, and pleasure combined.

\* \*

MICHIGAN like many other States, turned a political somersault at the last election, and in consequence has at the present time a Democratic governor. What sort of an impression the Democratic rulers of Michigan are going to make remains to be seen. Thus far the impression is not a very favorable one. In his introductory message, the Governor, in connection with other supposed reform measures, recommends the abolition of the State Board of Health. This economical Board costs the State only twenty thousand dollars a year, and is able to show that by its labors a large number of lives are saved annually, the pecuniary value of which to the State is not less than ten times the entire expenses of the Board, to say nothing of their value to society, themselves, and friends, which cannot be expressed in dollars and cents. An economical policy which begins by the retrenchment of expenses for the protection of the public health, is, to say the least, not a wise one. There is little probability, however, that the legislature, although Democratic in character, can be induced to adopt any such measure, even though it has the recommendation of the Governor.

PUBLISHERS' DEPARTMENT.

A NUMBER of patients from various parts of the South are spending the winter at the Sanitarium. All are making improvement healthwise, and enjoying our delightful Northern winter.

\* \*

MICHIGAN has been enjoying a month of beautiful spring weather. While New York has been groaning under a blizzard, and Florida and Florida oranges have been nipped by the frost, Michigan has been smiling with sunshine, with now and then a light April shower; but most of the time the air has been just cold enough to be brisk and tonic, and yet allow the feeblest invalid to be out-of-doors. The patients at the Sanitarium are greatly enjoying this delightful weather. On the whole, Michigan seems to be the favored State of the Union, rarely too hot, seldom extremely cold. The atmosphere is not only tempered by the great bodies of water which surround it, but as the air passes over these great areas of water surface, it is washed of its germs and largely deprived of dust, so that Michigan is justly celebrated not only for the absence of extreme temperatures, but for the purity of its atmosphere.

\* \*

THE "Winter of Our Content," is the title of a recent charming paper by that brilliant writer, Charles Dudley Warner, wherein the glories of the Pacific Coast as a winter resort are most graphically described. The American people are beginning to understand that the Puget Sound Country is one of our most splendid possessions, and that the name of the "Mediterranean of the Pacific" is a happy title not misapplied. In speaking of Mt. Tacoma, Senator George F. Edmunds says: "I would be willing to go 500 miles again to see that scene. The continent is yet in ignorance of what will be one of the grandest show places, as well as sanitariums. If Switzerland is rightly called the playground of Europe, I am satisfied that around the base of Mt. Rainier will become a prominent place of resort, not for America only, but for the world besides, with thousands of sites for building purposes that are nowhere excelled for the grandeur of the view that can be obtained from them; with

typographical features that would make the most perfect system of drainage both possible and easy, and with a most agreeable and health-giving climate."

Thousands of delighted tourists over the Union Pacific the past year bear ample testimony to the beauty and majesty of this new empire of the Pacific Northwest.

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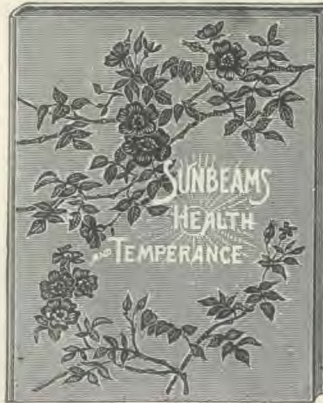
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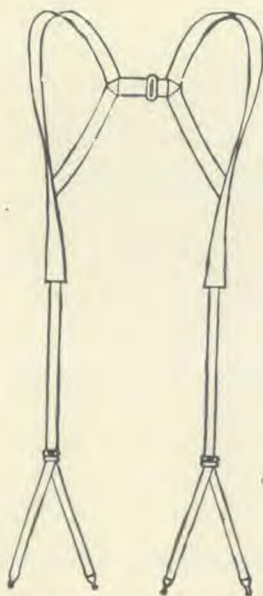
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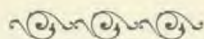
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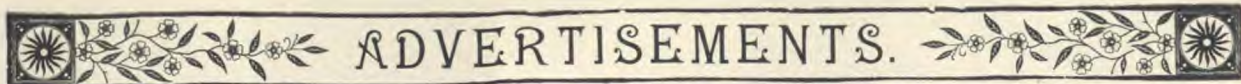


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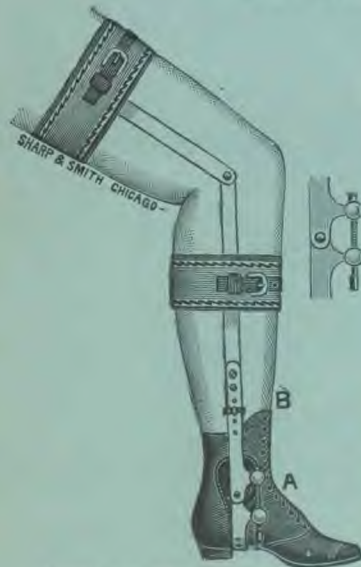
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