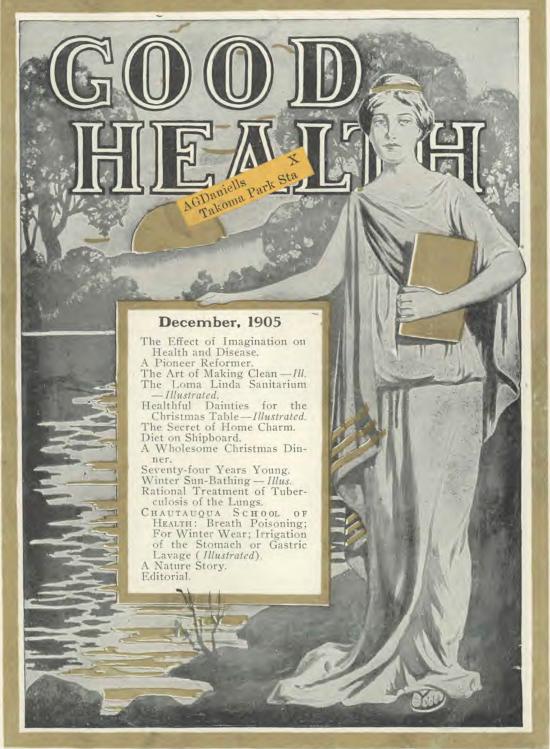
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VOL. XL.

Edited by J. H. KELLOGG, M. D.

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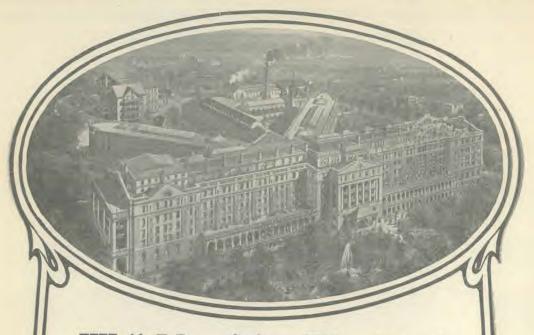
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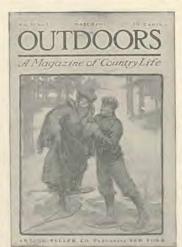


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Is the oldest health journal in the world. It is owned and published by a philanthropic association organized for the purpose of promoting hygienic reform in general and especially dietetic reform. There is no private interest, and the journal is not the organ of any institution or association other than its own.

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For nearly forty years GOOD HEALTH has been an exponent of the principles of the simple life. From year to year substantial improvements

have been made, but the volume for 1906 will be more interesting, more instructive, and more attractive than any of its predecessors. All the regular features of the journal which have made it a standard health magazine will be retained

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A SERIES OF LESSONS IN COOKERY

Based upon food units, or calories. Each lesson will show how to prepare a properly balanced bill of fare for one person; that is, a bill of fare which contains all the various elements—proteids, carbohydrates, and fats—needed by a single person, so that it may be used as a unit in the preparation of bills of fare for any number of people. This will make it possible for every housekeeper to bring the family bill of fare in line with the very latest developments in scientific dietetics.

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Will be continued and improved.

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In which special attention will be given to the selection and construction of a home from a sanitary standpoint — sanitary furnishings, sanitary house-keeping, and how to maintain perfect sanitation in the ordinary dwelling.

INVALIDS' NUMBER (August)

devoted especially to the home care of the sick. This number will be of special interest, as it will contain a great variety of new and effective measures of treatment which may be employed in the home. Every home must make provision for sickness. It will come sooner or later. This number alone will be worth vastly more than the subscription price.

The June number will be devoted to OUTDOOR LIFE. There will also be a special MOTHERS' NUMBER (October), which will be of great practical interest.

The publishers are planning for special illustrative material, and are making premium offers which are well worth considering.





WHOLESOME CHRISTMAS CHEER

GOOD HEALTH

A Journal of Hygiene

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No. 12

THE EFFECT OF IMAGINATION ON HEALTH AND DISEASE

BY J. H. KELLOGG, M. D.

IN every community there are to be I found those who are pursued by the ghosts and hobgoblins of diseases which they do not have, but which they have heard their neighbors talk about, and have read about in popular medical books, and particularly in the advertising columns of the newspapers. The interesting stories that are told about Warner's Safe Liver and Kidney Cure, about Paine's Celery Compound, and various other things of a similar sort, excite the imagination of some persons until they are sure they have the particular disease described. There are doubtless a great number of people who get well after taking nostrums that have absolutely no medicinal value.

Some years ago one of the most popular nostrums advertised was a Compound Oxygen. It was so well advertised that thousands of people purchased the little bottles, holding about twelve ounces, for sixteen dollars, and the nostrum achieved marvelous results. One man who used it testified: "I know it is good. I had a club nail on the little toe of my left foot, and I took two bottles of Compound Oxygen, and I have a brand new toe-nail." It is quite as reasonable to suppose that Compound Oxygen could grow toe-nails as to suppose that it could cure diseased livers; if it could grow new livers, and new lungs, why couldn't it grow new toe-nails?

A man down in a Southern city years ago when a cholera epidemic was threatened there, was so afraid that he would take the disease that he arranged with his wife to have a bottle of cholera mixture on the table beside his bed every night. He never went to bed without the cholera mixture close at hand. One night he awoke with a terrible pain in his stomach. He thought the cholera had attacked him, and he called to his wife, "Mary, Mary, I've got it! Give me the cholera mixture, quick, quick!" He took a large swallow of it, and rubbed some over his face, neck, and stomach (it was one of those remedies which may be applied in any way, outside or inside), and he felt better and went off to sleep, thankful that he had the cholera mixture to rescue him. The next morning they discovered, to their dismay, that the contents of the bottle was ink instead of cholera mixture; but it had helped him just the same. That does not prove that ink is good for cholera, but it does prove that the imagination can have wonderful influence in cases of disease.

Dr. Stephen Smith, of New York, relates an instance in which the thing worked the other way. He was physician to the Buffalo City Hospital during the cholera epidemic. They had a patient on the second floor who came for treatment for his eyes. He had been confined there for about two weeks, and had

not been at all exposed to the cholera. One day he happened to hear that there were cholera patients in the house, and he immediately began to feel sick. When the doctor visited him in the morning, he was a great fat jolly Dutchman. The doctor was called to see him again at noon, and he did not recognize the man, so changed, emaciated, and drawn had his face become. By ten o'clock that night the man was dead. He did not, of course, have the cholera, but he died of fright.

There is a story told of an incident that happened in London some time ago. A beggar woman with a baby in her arms asked alms of a wealthy lady sitting in her carriage doing her shopping. The lady turned away, and paid no attention to the beggar. In great indignation, the woman threw her ragged baby right into the lady's lap, shouting, "That baby has got smallpox!" and fled. The lady was, of course, in great terror; the baby was carried away by the police, and she went home. Events proved that the baby did not have the smallpox at all, but the lady went through the regular course of the disease, or something that appeared just like smallpox.

The imagination seems to have immeasurable power to affect the body. A poor hysterical girl was brought into a hospital in Hungary some time ago, and the doctor said to her: "I am going to apply a hot iron to your arm to brand the initials of your name upon it." He took a piece of cold iron, and with it marked out the initials of the woman's name upon her arm and she went home. The next morning there were raised red marks upon her arm, exactly as if she had been burned, and in exactly the form of the initials of her name. A week from that time there was a sloughing, and the woman bears upon her arm the scars

of a cauterization which occurred with a cold iron,—the effect purely of her imagination.

Some years ago there came to the Battle Creek Sanitarium a garrulous old dyspeptic, afflicted with a peculiar kind of dyspepsia not often met with. This man went around telling everybody about it, and in a week there were twenty or thirty cases of that kind in the house.

After the earthquake in Savannah, the newspapers stated that it had not been altogether a calamity, for there were several chronic invalids who were restored on that occasion. One of these was an old woman crippled from rheumatism, who had not walked for fifteen years. When she felt the house shaking, she scrambled downstairs in a hurry, and from that time was able to walk.

A gentleman who was subject to rheumatism, which attacked him when he was exposed to the least chill, heard the fire-bell ringing in the middle of the night. He looked out of the window, and it appeared as if his own store were on fire. In his excitement he hurried down the street in his pajamas, not stopping to put on his clothes. He found the fire at his neighbor's store instead of his own, and went to work with the rest to help put it out. After the fire was out, and they were all standing chatting, he noticed a great many people looking at him and smiling, and finally he asked, "What are all these people laughing about?" They brought him up to a big show window where there was a lookingglass, and he laughed heartily himself and went home. He did not suffer the slightest touch of rheumatism nor any other ill effects from his exposure.

A visitor to a lunatic asylum in New Jersey tells the following story: The first thing that attracted his attention was a portly German who was standing laughing in front of a cage in which was a man shut up like a beast, standing with his back to the door. The visitor was in doubt as to which was the lunatic, the man inside or the man outside the cage, as the German was laughing immoderately, without any apparent reason. Finally the superintendent of the institution said: "The man in the cage is a New York business man, naturally a very jolly sort of man. One day, when he was chatting with his family, his face suddenly assumed a strange, melancholy

look, he ceased to laugh, and has not smiled since. I thought that if he could only be made to laugh once, it would break the spell of this lunacy that is upon him, so I hired this man to come here and laugh." The man was there laughing for three weeks, and at the end of that time the man in the cage suddenly turned round and said, "If you are going to keep on laughing, I might as well laugh, too." He burst into a fit of laughter; the spell was broken, and his reason was restored.

BELLS OF CHRISTMASTIDE

CHRISTMAS bells, chime out triumphant
Over land and over sea!
Send your happy tidings floating
On sweet waves of melody;
Softly tell your tender story,
O'er and o'er and o'er again,
"Glory in the highest, glory,
Peace on earth, good-will to men."

On your wings of music, sweet bells,
Bear our thoughts to Him above,
Touch our hearts to time their pulses
To the rapt'rous psalm of love.
O! ring out all strife and malice,
With the story of His birth,
Ring in Faith and Hope and Love,
And peace on earth.

- Claudia Tharin.

A PIONEER REFORMER*

BY REV. HENRY S. CLUBB

JAMES CLARK lived for a purpose, and as the principles which he exemplified become more appreciated, his memory will become more cherished.

James Clark's early life was devoted to the shipping business as a buyer for a house in Manchester, England. It was in 1845 that he became a teetotaler and labored in connection with the temperance society of the Oldham Street Tabernacle. In 1851, at the age of twentyone, he adopted vegetarianism, and thus became an adherent of the distinctive requirements of the Bible Christian church,—the abstinence from both intoxicating liquors and the flesh of animals as food.

* Abstract of a memorial discourse delivered at the Bible Christian Church, Philadelphia, Sunday, Oct. 22, 1905, in commemoration of the seventy-fifth birthday of Mr. Clark, The Manchester Guardian, in giving a memorial notice of Rev. James Clark, states:—

"Few men have rendered so much unpaid service to the public as has Mr. Clark. During the cotton famine he was one of the most active members of the committee in Salford, and after the Lower Broughton floods (1866), he devoted much time to supplying the needs of the poor folk, whose little homes had been destroyed. For a number of years he was a member of the Salford Board of Guardians, and was instrumental in bringing about some important reforms. In 1889, when he resigned the chairmanship and retired from the Board, he was presented with an address signed by every

member of the Board without distinction of party.

"Mr. Clark was always a stanch Liberal, and an ardent friend of education. As a young man he was honorary teacher of the Salford Lyceum, and he served two terms on the Salford School Board. In connection with the Bible Christian Church there are large Sunday- and day-schools, which rank among the best in the borough. Connected with them is a flourishing Band of Hope, in which Mr.

Clark took special interest. He was the senior member of the United Kingdom Temperance Alliance, and a vice-president of the Manchester and Salford Tem perance Union and of the Lancashire Band of Hope Union. In 1902 he presided over the annual meeting of the Vegetarian Society,

which he had served in various honorary capacities. He represented the Society at the International Congress held in Chicago in 1893, and again at the St. Louis International Congress of 1904, and similar congresses of vegetarians at Paris and Cologne. In May, 1905, he was present at the May meetings of the Vegetarian Society in Cambridge.

"His death is regretted not only in the town to which he gave so much service, but among a wider circle of friends both in England and America, who valued his sober enthusiasm and integrity."

The Salford Reporter, Mr. Clark's home paper, gave a much more extensive memoir, accompanied with a portrait. From this we gather some of the following additional information:—

He lived a strenuous life, and was untiring in his energies for every work he conceived to be of a beneficent character. Connected with his church, then in King Street, Salford, one of the most densely populated neighborhoods, where many poor people lived, there was estab-

lished a public library and reading room, and here was begun one of the first schools in Salford where evening classes were held. To this and to the fact that he became early connected with these evening classes, and with the Mutual Improvement Society. which was also



REV. JAMES CLARE

established in the schoolroom of the church, Mr. Clark owed it that he sub-sequently became the minister.

We well remember the monthly teas held in the church schoolroom, and the meetings following them. They were to us also opportunities for a better understanding of the doctrines and principles of the Bible Christian Church. When Parliament was not in session, Mr. Brotherton would be present and open the proceedings with one of his practical speeches, usually illustrated by some prominent scientific discovery, some his-

toric incident, or some event in his own life.

Then would follow an elaborate scientific speech by James Simpson, Esq., J. P., president of the Vegetarian Society, and an address by any prominent temperance advocate or physiological reformer who happened to be present, and lastly the young men members of the evening classes had an opportunity to try their wings of oratory and express the sentiments they had imbibed from their contact with the older exponents.

We were then in our twenties, and expected to take part. Being three years older and in vegetarian practise ten years in advance of Mr. Clark, our period of activity preceded his, and his appearance at these meetings occurred after our departure for America. In 1893, about forty years afterward, we recognized each other at the Metropolitan Hotel, New York, when on the way to the great Vegetarian Congress at Chicago, held that year at the World's Fair, pronounced by the Fair Managers to have been the most truly international of all the congresses that had been held under their auspices.

Mr. Clark's visit, representing both the Vegetarian Society and the Vegetarian Federal Union, with that of his colleagues, Messrs. Axon, Dixon, Hansen, Ernest Clark, Miss May Yates, constituted an important epoch in the vegetarian movement in this country. Mr. Clark was a keen observer, and a devoted participant in this Congress, each session of which was presided over by some prominent reformer, aided by the counsel and advice of Mr. Clark, who remained on the platform during all the sessions, maintaining the dignity and high purpose of the Congress throughout.

In an autobiographical sketch of his life, Mr. Clark related his experience in

connection with the vegetarian practise. Referring to the meetings of the Mutual Improvement Society, he states: "Among the subjects discussed was vegetarianism, introduced by perhaps the ablest member, Mr. J. W. Betteney, and I undertook to lead the opposition. Using all diligence, and getting all the help possible, I found arguments were very scarce, but assertions very confident, and we all did our best. The vegetarians were greatly outnumbered, but they contended valiantly, and at the three successive meetings of the class the subject was debated with unflagging interest. At the close I admitted that our side had the worst of the argument.

"But between being convinced and being converted, difficulties intervened. Our family was a large one, and the work was heavy, so my stepmother not unreasonably objected to cooking separately for me. But not counting the cost, I determined, meals or no meals, I would try the system. Prophecies were forthcoming that I would not live three months, but I lived on for six months, so silencing the prophets of evil. Then I considered it prudent to surrender to the difficulties of home life, which showed no signs of diminishing. But the change back was both mentally and physically disgusting, for what was at first only a matter of hygiene had become a matter of conscience, and I was satisfied there was a law connected with the better life, in being the protector, instead of the tyrant, of what have been beautifully called 'our little brothers.' The arguments from Scripture which I sometimes heard on Sundays, and often read in the pages of the Vegetarian Messenger, powerfully appealed to me. Thus it befell that I became again and finally a vegetarian. I had become a teetotaler in 1848, and from the first week was pressed into

active service as secretary of a society which held weekly meetings in the Tabernacle in Oldham Road, and supplemented its labors by house-to-house visitation and delivering tracts. Here, amid much discouragement and difficulty, I learned to labor and to wait, relying upon the hope that no good seed would perish or fall fruitless, and from that time I have not looked back, but ever pressed onward. My return to vegetarianism was in 1851, and soon after in the Bible Christian Church I found my future partner for life, who added to many virtues that she was a life-long vegetarian, and understood well the practical part of it.

"After a lapse of ten years, our old church building became unsuitable, and our congregation migrated to our present church home, in Cross Lane.

"My term of service has nearly reached forty-six years (May, 1904), spent, on the whole, very happily, loving and being loved by a people some of whom were baptized and married by me, to a second generation.

"For the joy I have had in life, and the service which it has been possible to me to give to my neighbors in no narrow sectarian spirit, I give my best thanks to Him to whom they are due."

These concluding remarks were published by Mr. Clark in June, 1904, and appear to have been written under the prophetic impression that his life on earth was drawing to a close. He, however, visited this country in September of the same year, and visited the St. Louis Exposition. This proved to be his last visit to his friends on this side of the Atlantic. They saw and remarked that his strength and power of endurance were not equal to what they were on the occasion of his previous visit.

THE ART OF MAKING CLEAN

BY MRS. E. E. KELLOGG

WHEREVER clothing for the body is a recognized need, there also exists the necessity of some method for cleansing of fabrics and wearing apparel. Dust and dirt are of such universal prevalence that it is impossible for the clothing not to become soiled through

contact with them, while the impurities constantly being given off by the body itself render even more imperative the need of washing and changing of garments as a sanitary measure.

Washing of clothing is a matter of such moment that it was enjoined by the Lord

upon the children of Israel (Ex. 19: 10-14) as one of the measures whereby they were to prepare themselves to appear before Him. Throughout the Scriptures the frequent mention of the purification of garments, the washing of robes, would seem to indicate the truth of the old



MEXICAN WASHERWOMEN



From stereograph, copyright 1903, by Underwood & Underwood, N. Y.

WOMEN WASHING IN THE RIVER DEE, SCOTLAND

adage that "cleanliness is next to godliness."

The primitive method of laundering was probably akin to that in practise among the peasantry of European and other countries at the present day; the washing being done on the banks of a stream or lake, using a stone for a washboard, or rubbing the clothes with the hands. Sometimes the clothes are put into a box and soaked in water in which soap has been dissolved; afterward they are pounded with sticks or stones, and then rubbed clean with the hands.

In Mexico, where this custom is also in vogue among certain classes, it is a very amusing and interesting sight to come upon a river or brook on washday, along the banks of which the women of half the community are ranged, with their paraphernalia for washing. When at their work the women stand in the shallow water or kneel upon the bank. After dipping each soiled garment in

water, it is then thrown upon some large stone, rubbed with a sort of soap-bark, patted and pounded, and rewetted with water scooped up in the hand until clean. For a final rinsing it is trailed and beaten in the stream. Not alone the clothing of the family is thus made clean, but the babies and children, who always accompany the mother, are treated to a cleansing bath, so that the occasion is a "family washing" in its most literal sense.

In some parts of Scotland it is the custom, after the clothes have been soaped and placed in the tub, to tread them with the bare feet. This method is also practised by the Egyptian woman.

In the days of our grandmothers a pounder and barrel were considered the requisites for washing. Soft soap, which the thrifty housewife manufactured for her own use and kept on hand in bulk, was first freely applied to all particularly



WASHING ON THE HOUTE

soiled portions, after which the articles were placed in a barrel filled with warm water of a depth to cover them, and then with alternate pounding and turning the dirt was readily extracted. Whether this procedure was less laborious than the "rub-a-dub-dub" of the board and tub depends greatly upon the strength and muscle of the worker. It certainly did not induce the constrained back-breaking



From stereograph copyright by Underwood & Underwood, N. Y.
Washing in Yokohama, Japan

positions so frequently accompanying the use of washboard and tub. Both methods have been largely superseded by machines, which do most of the work on the same principle, that of forcing water by some means through the meshes of the cloth to cleanse it of dirt and grime.

Whether one uses a tub or a machine, it is important to have the whole apparatus for washing so adjusted that one can maintain a natural, healthful poise during the entire procedure. Use the muscles of the arms, and not those of

the back, for the work. Whenever there is need of bending the body, let the movement be from the hips, and not from the so-called waist line. When one bends the body from the waist, an underpressure is brought upon the lungs above and the abdominal organs below the line of bending, as is also a strain upon the muscles of the back. Bending at the hips enables one to keep

the chest elevated and all the internal organs in their natural position, while at work. Avoid the need of unnecessary stooping by having the wash-bench of such height that the washing can be accomplished without it.

Avoid the lifting of tubs full of water by having them fitted with a faucet near the bottom. Avoid the carrying of baskets weighted with wet linen, by using a child's cart in which to roll the filled basket from laundry to line. To receive the clothes from the boiler, one ingenious woman of whom we have read, makes use of a drygoods box of convenient height on which to set the tub, the box being mounted on runners, such as are used on children's

sleds, put on lengthwise of the box so that it can be easily shoved from tub to boiler and from boiler to tub as needed. A shelf in the open side of the box furnishes a place for keeping clothes-pins, soap, and other laundry supplies.

Economize strength at every possible point. With the tubs at proper height, the use of the arm muscles, and not the muscles of the back, for the work, washing will be a task of far less wearisomeness.

Care should also be taken to avoid

unnecessary exposure of the health in other ways. When one has become heated by working in hot water, it is unwise to go bareheaded and with bare arms, in all kinds of weather, to hang out the clothes, as so many women are accustomed to do. The heat of the water and the steam brings the blood to the surface, and the open pores of the skin of the arms render one especially susceptible to take cold under such circumstances. Before going into a change of atmosphere one should plunge the hands and arms into cold water to counteract the effect of the heat, rub them

briskly with a coarse towel until dry, and protect the arms and trunk with suitable coverings before going out of doors. In winter weather the hands should be cov-

It is desirable, if possible, to have a special room for laundry purposes, even though it be not large. When one's kitchen is used for doing the washing, more or less of the vapor from the steaming and boiling of the clothes is of necessity absorbed by the food being prepared for the family meals, when, as is quite customary, both the laundry work and cooking are carried on simultaneously, to say nothing of the inconveniences of carrying forward the work in two departments in such close proximity.

The ideal laundry room is located



Industrious Dhobies (Washermen) at Work in River, W. from Lucknow, India

apart from the ordinary living and working rooms. Its equipment will depend upon circumstances. If there be stationary tubs, the plumbing should be of the best, with all pipes open to view, and everything so arranged as to facilitate perfect cleanliness.

The first step in the preparation for washing should be a careful sorting and looking over of all articles to be laundered.

Articles needing repairs should, when practicable, first be mended, as the washing process is likely to greatly increase all rents and tears. When so soiled as to necessitate washing before mending, garments may frequently be better preserved by basting up rips and rents, leaving more painstaking mending to be done when clean, before they are ironed.

All stains upon fabrics which will not yield readily to soap and water should be removed by special methods before the articles are washed.

All articles to be laundered should be sorted according to texture, color, and cleanliness. Not all textile fabrics can be treated alike. Colored articles require to be washed separate from white ones, and of the different assortments the cleanest of each kind should be washed first. Articles soiled with discharges from the nose and throat often require to be disinfected before washing.

Under the best conditions laundry work is a laborious process, and it is wise to provide against any unnecessary outlay of energy and to secure the desired cleansing of the clothes with as little wear and strain as possible. Soaking tends to loosen the dirt, making less friction necessary for its removal, hence is a measure of economy as regards both labor and the clothes. Most house-keepers have their own preferred method

for this procedure. A good way is to fill the well-rinsed tub half full of warm, not hot, soft water to which enough soap solution has been added to make a good suds, each article to be laundered first having every streak, spot, and especially soiled portion soaped well before immersing in the water. Fold the articles with the soaped portion toward the center, and roll up rather tightly. By this plan the soap is kept where it is needed during the soaking, and not dissipated throughout the water before it has done its work. It is important to use separate tubs for soaking the table linen and for the least soiled articles. One would hardly expect a dainty white garment to come forth fresh and clean from a pool of dirty water, yet practically this is what is presumed when articles that are not greatly soiled are put to soak with others that are especially soiled. Careful discrimination is needed in this respect. Handkerchiefs used while suffering from colds, catarrhal affections,



THE WRONG WAY

THE RIGHT WAY



IRONING BOARD TOO LOW, NECESSITATING AN INCORRECT
POSITION

and other illnesses should be soaked and washed by themselves, using some effectual means of disinfecting the same. It is a wise plan for each member of the household to have a separate bag in which to keep these soiled articles, so frequently left in corners or miscellaneously mixed with the general wash. Many diseased conditions might doubtless be avoided were care taken in this respect.

The soaking completed, the articles, lightly wrung from the water, are put into a clean suds for washing either by machine or by hand. With efficient preliminary attention, unless exceptionally soiled, they should require but gentle rubbing to cleanse them ready for boiling.

The boiling may not always be considered requisite for apparent cleanliness, but it is important from a sanitary standpoint, boiling being an effectual means of disinfecting any fabrics which may

well be subjected to the process. Merely scalding or pouring boiling water over the clothes is not effectual for their disinfection, as they are not subjected to the high degree of heat necessary to kill germs. Boiling also aids in the cleansing, dislodging, and extracting the dirt which may have resisted the efforts previously put forth. Careful rinsing through one or several waters, until the last remains clear, completes the process, and the garments are ready for drying.

Articles which have been thoroughly washed and rinsed, and well and carefully dried in the open air, do not require ironing on the score of either health or cleanliness. Indeed, there are those who claim that no ironed fabrics are so clean, so sweet-smelling, and, withal, so hygienic, as those which have been subjected only to the action of the sun and air, and are laden with the ozone they have absorbed while drying.



CORRECT POSITION

Undoubtedly, much energy, as well as time, might be saved for other and more valuable things by dispensing with the ironing of many articles in the weekly wash. Towels, dish towels, and sheets may be made smooth by careful folding when slightly dampened and placing under a weight, making it necessary only to iron the hems of the sheets. Hosiery and knitted underwear may be used unironed.

Custom has much to do with the apparent need of ironing, a good deal of which is done for appearance's sake, although comfort demands the careful ironing of many articles.

For ironing, the tables or ironing boards to be used should be of such height that the ironer can maintain a proper

poise during the performance of her task. for upon the maintenance of correct poise depends very largely the ease with which the work can be accomplished. Correct poise is Nature's plan for the conservation of energy, for making lighter the strain of physical exertion. With the body in natural poise, the chest uplifted, and with firmly held abdominal muscles, each of the internal organs maintains its proper adjustment; but when an incorrect position is assumed, there results at once pressure and strain, so that the body must act under a disadvantage and mechanically. To keep to Nature's plan in the washing and ironing, robs "blue Monday" of a large share of its terrors, and makes of the commonplace art, cleansing the household linen, a joy and pleasure.

THE LOMA LINDA SANITARIUM

THE Loma Linda Sanitarium, situated in the San Bernardino Valley, is an institution utilizing the Sanitarium methods which have given world-wide fame to the parent institution of Battle Creek, Mich.

When the traveler — westward bound by the Southern Pacific Railway — emerges from the San Bernardino mountain range, through the San Gorgonio Pass and the San Timeteo Cañon, he glides out upon the famous San Bernardino Valley, one of the fairest, sweetest scenes in Southern California.

California teems with fragments of fairyland, ideal vales, wherein nature and man have clasped hands to produce wonders in landscape effects; yet we venture to say that not one of them outrivals the valley of the San Bernardino, where, added to the above attractions, are an indescribable blue sky, soil astonishingly fertile, climate almost without fault, and on all sides great mountains ever telling their thrilling tales of the past.

At least three widely different races of men — Indians, Spaniards, and Americans — have successively occupied San Bernardino's sunny acres. Not the least deserving of notice, perhaps, is the anterior race, the Guachama Indian. When the first representatives of Spain entered the valley, these Indians were a free, prosperous, and gentle people. They called this valley "Guachama," which signifies a place of plenty to eat.

Loma Linda,—or Hill Beautiful,—multiplying its physical attractions year by year, is an imposing elevation about two hundred feet in height, rising near the center of the far-famed valley, and is about fourteen hundred feet above the sea,—a medium altitude, regarded by physicians as especially favorable for recovery from many diseases.



THE LONA LINDA (CAL.) SANITARIUM

Loma Linda is situated on the main line of the Southern Pacific Railway, sixty-two miles eastward from Los Anterest and cheer for the invalid,—one in which the student of nature must ever find delight. On every side extends the



A PORTION OF THE GROUNDS

geles. Three trains each way stop daily at the station, thirty rods from the base of the hill. The attractions of the place begin the moment the train stops. The visitor finds himself at the entrance of a broad driveway, arched over by grand old pepper trees, whose ruby berries and fern-like sprays almost sweep the ground.

Far up its northern crest, amid a splendid ornamentation of lawns, trees, shrubs, and flowers, amid a labyrinth of shaded walks and graded driveways, with groves of orange, lemon, olive, and apricot trees but a step from the door, stands the Sanitarium, the center of an entrancing scene, one replete with in-

wide, radiant valley, rich in scenic charms, affluent in fruits and grains, rimmed in by high hills and towering mountains.

To all this scenic beauty and faultless altitude, add the powerful influence of the subtle, life-giving atmosphere for which the location is famed, and one can scarcely imagine a spot more perfectly adapted to Sanitarium purposes. Where, if not here, can the feeble, the worn and weary, renew the forces of life?

An impressive feature of the main building, with its three stories and sixtyfour rooms, and of the five handsome cottages and the amusement building. is the scope, the amplitude, the liberality, which speak out in their dimensions, furnishings, and provisions for light, heat, and fresh air. To provide generously, to meet want even before it is felt, seems to have been the intent of the wise builders on Loma Linda.

All the buildings have the latest sanitary equipment, including steam heat, electric lights, private baths, and pure artesian water. The furnishings throughout have been designed and finished with strict adherence to Sanitarium principles, and at the same time with all the comfort and beauty of a modern home. A perfect system of house telephones connects with long distance.

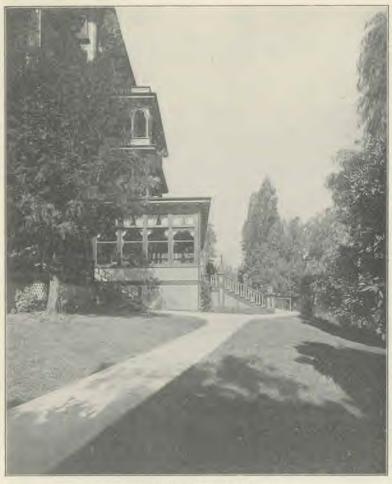
so located that every room in each may have an unlimited supply of genial sunlight. From broad windows in every apartment the guests may look out upon delightful vistas of mountain, valley, and matchless blue sky, and upon charming garden effects at the very door.

Nor in all this graciousness of outlook does the Sanitarium building itself fall behind. From its broad balconies and bountiful windows one almost forgets the display at one's feet, wrought out by greenery and flowers, and looks afar to the north, east, and west upon the towns of San Bernardino, Highlands, Redlands, San Jacinto, and Colton. Among the elevations rearing their crests all around,



THE SOLARIUM

The cluster of attractive cottages he searches for the massive, mysterious adorning the summit of Loma Linda is cones — San Jacinto, San Gorgonio, San



ANOTHER VIEW OF THE BUILDING

Bernardino — which for ages have stood in their place, filling out a scene to which no painter's brush can do justice.

One of the most attractive features of the main building is the spacious solarium, which forms the front entrance. Through its many windows stream floods of vivifying light. From it doors open into the inviting parlor, the main hallway, and the large dining-room.

This beautiful property, with all its equipment, is now under the management of those whose broad experience along Sanitarium lines has developed a well-defined and thoroughly scientific system

of rational treatment and healthful living, the keynote of which is simplicity. Sunshine, pure air, rest, and exercise amid beautiful surroundings and peacef u 1 influences, and a natural, wholesome dietary are nature's blessings, given to the well to keep them well. and to the sick to make them well.

The aim and purpose of the Loma Linda Sanitarium is to bring together in one place, and under favorable conditions, all the means. methods, and

appliances for the treatment of the sick which are recognized in rational medicine, and to utilize these means and methods in a conscientious and intelligent manner for the relief of suffering, the prevention and cure of disease, and to further by all proper agencies a better knowledge of the laws of life and health.

All the physicians employed at the Sanitarium are regular graduates of scientific medical schools, and their work is done strictly in harmony with ethical principles. A competent lady physician is always in attendance for the treatment of diseases of women and children.



A BIT OF THE PARLOR, LOMA LINDA SANITARIUM

Show us the man who in his heart believes in principle, and who, though defeated in his battle for that principle, rises to be defeated again and again rather than to abandon that which his soul loves,—show us such a man, and in that man we will show you one who has real character.—New York American.

A MAN is specially and divinely fortunate, not when his conditions are easy, but when they evoke the very best that is in him; when they provoke him to nobleness, and sting him to strength; when they clear his vision, kindle his enthusiasm, and inspire his will. The best moments in a man's life are often the hardest and most perilous.— Outlook.

DECEMBER

Thou closing month of every flitting year, Clad in the sheeny snow and giving frosty cheer.

Cold as thou art - thou givest Christmas day

To warm each heart with its celestial ray; Such winter's warming gives unceasing strength

To live aright and win bright Heaven at length.

— G. M. S., in Good Housekeeping.

HEALTHFUL DAINTIES FOR THE CHRISTMAS TABLE

Chocolate Charlotte. — Cut strips of sponge cake three-fourths of an inch wide, dip into the white of an egg, and



CHO COLATE CHARLOTTE

arrange in spindle form from the center of a glass dish with the center portion of the cake reaching to the edge. Fill with the following:—

Rub smooth three tablespoonfuls of almond butter with one cup of cold water, adding the water a little at a time. To this add one and one-half cups of hot water, the well-beaten yolks of two eggs, four heaping tablespoonfuls of sugar, six heaping tablespoonfuls of health cocoa moistened with one-half cup of hot water. Let all boil for one minute, then add two cups (½ oz.) of cooked vegetable gelatin. Flavor with vanilla.

Stuffed Potatoes. - Prepare and bake



STUFFED POTATOES

large potatoes of equal size. When done, cut them evenly three-fourths of an inch from the end, and scrape out the inside, taking care not to break the skins. Sea-

son the potato with salt and with a little thick sweet cream, being careful not to have it too moist, and beat thoroughly with a fork until light; refill the skins with the seasoned potato, fit the broken portions together, and reheat in the oven. When hot throughout, wrap the potatoes in squares of white tissue paper fringed at both ends. Twist the ends of the paper lightly together above the fringe, and stand the potatoes in a vegetable dish with the cut end uppermost.

When served, the potatoes are held in the hand, one end of the paper untwisted, the top of the potato removed, and the contents eaten with a fork or a spoon.

Meltose Crisps. — One-third cup vege-

table oil, twothirds cup meltose, two cups white flour, two heaping teaspoonfuls gluten raising powder,



MELTOSE CRISPS

Sift the flour with the raising powder added. Emulsify the oil with the meltose, and add to this a little vanilla or lemon extract for flavoring. Stir the oil and meltose mixture into the flour, knead lightly, roll thin, cut in any desired shape, and bake in a moderate oven.

Mold of Cranberry Jelly with Banana.

— Steam a pint of cranberries, without the addi-

tion of water, in a double boiler until the skins are



broken. CRANBERRY JELLY WITH SLICED BANANA

Press through a colander. There should be one cupful of juice. Then to this add one-half cup of water, one-fourth cup of lemon juice, and one cup of sugar.

Soak an ounce of vegetable gelatin in

hot water for twenty minutes, wash well in several waters, then cook in one cup of water until clear. Add this (which should measure one cupful) to the cranberry mixture, and mold. Ornament with sliced banana.

THE SECRET OF HOME CHARM

BY ADA COX

WHAT constitutes attractiveness in a home? Is not cleanliness, absolute cleanliness, the first requisite? Cleanliness before order. If we can not have both, let us dispense with the latter. Give me one bare room with a floor that I can scrub, and walls which, if they must be papered to hold the plastering, I can cover with clean newspapers, - a room which I can have full of God's free, fresh air and sunshine, and a few simple articles placed as I wish them; rather than a full suite with sumptuous upholstering and silken hangings if they are full of germs which every touch sends flying, and if there is only air that has long since forgotten it was ever God-made, so many times has it been man-made over.

Cleanliness everywhere, but pre-eminently in the kitchen. How can a hostess expect to preserve her charm for her guests or set before them an appetizing meal if they see her dabble her fingers in a basin of standing water so thick that the bottom of the basin can not be seen, and dry them on the commonly used kitchen towel, before mixing her dough and preparing her meal? Every woman can have clean water, a little tool handy for cleaning under and around the nails, and a clean towel hanging behind the pantry door. A kitchen floor made clean once a week, is more healthful and looks far better than one slopped over with a mop every day. A house can be kept so clean that disinfectants are never necessary, save in case of sickness.

Next comes order, if we can have it, and the little touches that express the personality and individuality of the homemaker; never, necessarily, bric-a-brac or fancy-work. Many of us remember the age of the lamp mat and the tidy. Some of us perhaps set our first stitches in these extremely useful and ornamental articles. Many of us pounded brass and put our best brain force and best hours into the work, and our homes were filled with sconces and traps and placques mounted on red or blue plush. These things will not burn or be destroyed, and they clutter our store-rooms, or help swell a dumpheap that adorns some otherwise attractive shade beside the highway. Artists, sometimes, in order to display the beauty of color or weave of a fabric, toss it across an easel or over the corner of a frame. Home-makers caught the fever, and for a time we had pieces of silk and linen, and even cotton, hitched on to every available projection,- mirror and picture frames, chair posts, table corners. shelves, bed, headboards, - no articles were neglected; all were draped. popular drapery was a piece of stiff bolting cloth with colored silk fringe sewed across the ends, and a string tied about its middle. How gracefully it draped, one end sprawling in one direction, the other carefully spread out to show its lovingly and patiently executed decoration in oil.

Many of us dabble in water colors or paint china. It is delightful work, but how much more attractive does it make the home? The working is a pleasure; the products are soon cumbersome. The money spent for material and instructions, if put into one or two good pictures and a few pieces of good and artistic china, would furnish continual pleasure to ourselves and to nearly every one who enters our homes.

It is the people themselves who really make the place the home. What is the house without the living presence? Probably we have all been in the familiar room of a friend when that friend had gone away; I do not mean on that long journey to the undiscovered country, but out for a day or for a few weeks, when we keep the key and go in to air the rooms and see that all is right; and how glad we are to get out and away.

What constitutes attractiveness and charm in a woman? Any young woman, if she is pretty, attracts and pleases; but she is middle-aged and elderly, and sometimes old, so much longer than she is young. We say, then, disposition, mental attainments, and moral traits. Does the embroidering of linen, the working of lace, the burning or carving of wood, add to the attractiveness of the woman? These are pleasant occupations, absorbing ones, and tend to selfish thinking or no They engender the sponge thinking. nature, - that of absorbing, and having nothing to give off. Have not some of us when engaged in these alluring pastimes, regretted a ring or a rap at the door, and been suffused by a shamefully inhospitable feeling, and for a time after being called from our work, been unable to be ourselves even to those we most enjoy? We say, "The things are so

pretty, and make such nice presents." They do look beautiful to us, and the friends who receive them admire them, but other things are just as acceptable, and fully as much enjoyed. Truly artistic needlework is very beautiful, and always has been and always will be valued and admired; but each style has its day, and then is comparatively valueless until it again becomes the fashion or is very old. Time spent on embroidering linens in colors seemed well spent, as the articles were lovely indeed, but they are already relegated to the bottom of the linen drawer, and ere long will repose in the store-room box.

Is not a home to-day as attractive a place if a beautiful piece of linen, plain and exquisitely laundered, covers the middle of our tables, as if an elaborately wrought lace centerpiece reposed there? Beautiful needlework is a delight to look upon, and a delight to execute, and the art is an accomplishment, and, if practised in moderation, is good; but it so easily becomes a selfish occupation. I speak from experience.

If a woman has talent or genius for needlework or decorative work, and earns her living thereby, well and good; but it is the home-making talent we are considering. I have a little neighbor and friend who snatches every available moment from her many home duties to go about doing good. Scarcely a day but she is seen tripping along the road and sometimes across the fields, with a basket on her arm or with a book or a magazine in her hand, or a bunch of gay flowers nodding in unison with her quick step. Sometimes she runs in with a newspaper clipping, or a new design for a shirtwaist. If there is sickness or trouble in the neighborhood, this little woman is the first to do and to give. When needlework has been the subject under discussion, she has said to me several times, "I wish I could do as beautiful needlework as my sister-in-law does." I have learned the secret of the skill of that sister-in-law. She hurries with her housework, doing the most she can in the shortest possible time. After the noon meal she gives her children poppy-seed tea, puts them to bed, locks the door, draws the shades, and hies herself to a back upper room, and stitches and stitches. We can imagine her lost to everything but her lace, the husband and hired men are coming in tired from the field, hungry for supper, and then a rush and scramble to put a poorly cooked meal on a hastily laid table with the intricately wrought doilies and centerpieces awry. Once, when expressing admiration for a very pretty stock this neighbor of mine was wearing, and which she herself had made, she said, "Oh, I wish you might see the work my sister-in-law does, - so fine, and such quantities of it." I dared to ask her if her sister-in-law was an interesting woman. "Oh, she doesn't talk about very much but her fancy-work."

Why not put more of our careful stitches into handkerchiefs and collars? No sensible woman believes in spending too much time or thought upon adorning the body, but dainty and tasteful linen adds much to a woman's attractiveness, — infinitely more than does the ability to make lace or paint china, and a part of the time used in plying these arts might be spent in rest and sleep (which keep a woman young and attractive) or in mental culture.

All the advantages that money gives,—travel, leisure, education, seeing and possessing the best in material things, — do not always give culture. Culture is being quick to see and to feel for others, to appreciate; and to be able, quick, and willing to express this appreciation by word, look, and manner. I believe we can, by ambition and effort, make ourselves as responsive to the expressed thoughts, feelings, and interests of others as an Eolian harp is to every breath that touches it.

DIET ON SHIPBOARD

BY LENNA FRANCES COOPER

I fone wishes to take a vacation, get away from telephones and all other harassing sounds; in other words, take a complete rest, and at the same time have the benefit of pure, fresh air and the services of a first-class hotel, there is no better way to do so than to cross the Atlantic on one of the large ocean liners. The service is unexcelled, everything possible being provided for the comfort and pleasure of the passengers. The menu is all that could be desired by any except those who wish to live a simple life, and whose aim it is to "eat to live" rather than to "live to eat." Even for

such there is quite enough from which to choose, especially when it is remembered that persons who are not working do not require so much as when actively occupied. One who is exercising freely requires from twenty-five to thirty per cent more food than a sedentary person.

But few are wise enough to accommodate their diet to the needs of the body. A glance at the following menu, which may be taken as a fair sample of the average dinner, will convince the reader that the needs of the body were not considered when the bill of fare was planned:—

Little Neck Clams

Smoked Sardines Bloater Toast

Cream of Barley

Consommé Royale

Baked Blue Fish - Creole Sauce

Calves' Feet - Italian Sauce

Fricassee of Chicken, St. Lambert Sirloin of Beef — Horseradish

Haunch of Mutton — Red Currant Jelly Duckling — Apple Sauce

Green Peas

Asparagus

White Squash

Boiled Rice Boiled and Soufflé Potatoes Civet of Hare Salad

College Pudding

Neapolitan Sandwich Shrewsbury Cakes

Apple Tart

French Ice Cream Cheese Fritters

This menu was one of the regular dinners served this season on one of the great ocean liners. It will be noticed at once that the chief article is meat, of which the principal constituent is nitrogen, the other factor being fat; both of which are necessary to health, but only in limited quantities. Fats are productive of indigestion when taken in more than moderate quantities, because they repress the flow of gastric acid, which is necessary for the digestion of the nitrogenous element. Hence not more than one and one-half to two ounces should be taken daily.

According to the latest experiments of science, it has been found that one and one-fourth to two ounces per day of proteid or nitrogenous food are all that is necessary. More than this is not only unnecessary, but detrimental, because of the uric acid, urea, and other poisons created by the oxidation of the proteid.

The starches, fats, and sugars, or the carbonaceous element, when burned within the body, are converted into water and carbon dioxid, both of which are harmless to the body, because the carbon dioxid leaves the body completely

through the lungs, and the water is used in the body.

But not so with nitrogenous foods. When they are burned, or oxidized, in the body, the poisons before mentioned are formed. When these exist in only a normal amount, they are excreted through the kidneys, but in increased amounts these organs become overburdened, and the poisons are stored in the tissues, causing rheumatism, gout, Bright's disease, languor, etc. So it is much safer to err on the side of the carbonaceous element than the nitrogenous. How foolish, then, to overload the system with foods which will not only produce these poisons, but which in themselves contain them (meats for instance), thus adding an extra burden to the already overworked organs.

There is no doubt but that the enormous consumption of nitrogenous foods is an important factor in race degeneracy.

After noting the great amount of meat consumed, much of it rich in fat, we were not surprised to find about half the passengers suffering from obesity, to say nothing of less apparent diseases.

One morning, after having breakfasted on a dish of strawberries and two soft-boiled eggs, with bread and butter, — a meal sufficient for any traveler, it would seem, — we were asked by the table steward if we would not have something more. Upon our declining, he said kindly, "Why! are you sick? or are you afraid to eat? You must eat something."

Eating seems to be the chief amusement for many on board. Lunch is served between the three regular meals, and, when desired, an early morning breakfast in one's room and a late evening supper will be served. It is surprising that so many partake of all seven of these meals, and it is sad to think of the many ills awaiting those who follow such a life.

Fruits, which are always abundant, should constitute a chief part of one's diet on shipboard. Fruit is not only refreshing and soothing, but is excellent for toning up the system. Many are of the opinion that there is great virtue in seasickness as a means of clearing the body of impurities. The free use of

fruit is a much pleasanter method, however, and it need not be delayed until one has an opportunity to take a voyage.

Fruits, with nuts, eggs, vegetables, butter, and bread (zwieback being preferable and usually obtainable), also a few of the simple desserts, make a diet ample enough for any.

A WHOLESOME CHRISTMAS DINNER

BY GEORGE E. CORNFORTH

Nut and Bean Soup - Crescent Croutons Roasted Potatoes - Brown Sauce

Fig Puffs Jellied Cranberry Sauce Cocoanut Macaroons Black Walnuts

Protose Soufflé with Peas Hubbard Squash Celery

Vegetable Oyster Salad - Toasted Granose Biscuit

Steamed Fruit Pudding - Raspberry Sauce Malaga Grapes Apple Tuice

HRISTMAS is, as a rule, made a time of feasting, and many who are strict in their habits of eating will take liberties in the indulgence of appetite at that time which they would not think of allowing themselves to take at other times. This custom detracts much from the benefit which might result from a Christmas holiday.

The bill of fare here presented contains a list of dishes of which one may partake without overstepping the bounds of healthful living, and which at the same time will please the taste.

Nut and Bean Soup. - A bean soup which may be enjoyed by those who still have a taste for the flavor of a ham bone in soup is made as follows: One and three-fourths cups dry lima beans, one small potato, one medium-sized onion, one-half cup nut butter, one-third cup nut meal, two teaspoonfuls of salt. Wash the beans and put them to cook in cold water. Wash the potato with the skin on. Slice it and the onion thin, and add them to the beans. After the beans have been cooking one-half hour, add the nut butter and nut meal.

When the beans are thoroughly cooked, rub the whole through a colander. Add water to make two quarts of soup. Salt, reheat, and serve.

Protose Soufflé. One cup of milk, one and one-half tablespoonfuls of cornstarch, three cups minced protose, three eggs, one tablespoonful browned flour, three-fourths teaspoonful celery salt, three-fourths teaspoonful common salt. Heat the milk to boiling. Add the cornstarch, which has been stirred smooth with a very little cold water. Take it from the stove and add the yolks of the eggs, the protose, the brown flour, the celery salt and common salt, and last the stiffly-beaten whites of the eggs.

Fill oiled cups with the mixture and bake fifteen minutes. When done, turn onto individual platters. Around each place a border of green peas, and serve at once. A sprig of parsley may be placed on one end of the platter, and a little cranberry jelly on the other.

Roasted Potatoes.— Fill a baking-pan with peeled potatoes. Brush them over with salted cream. Cover them closely and bake. If they are not sufficiently brown when done, the cover may be removed to brown them. Serve with—

Brown Sauce. — Four tablespoonfuls nut meal, one teaspoonful nut butter, one and one-half cups cereal coffee, two and one-half cups water, two tablespoonfuls flour, salt. Dissolve the nut butter and nut meal in the water, add the cereal coffee, heat to boiling in a double boiler, add the flour, which has been stirred smooth with a little cold water. Salt to taste, and allow it to cook fifteen minutes.

Hubbard Squash. — Select a very hard squash. Cut it in pieces, remove the seeds, wash thoroughly, and steam till tender. Then scrape the squash from the rind, mash, and season with salt and a little cream.

Vegetable Oyster Salad. — Wash and scrape one bunch of vegetable oysters, and as you clean them, drop them into water to which one-half cup of lemon juice and one tablespoonful of flour have been added. To one quart of boiling water add one-half cup of lemon juice and one-half tablespoonful of flour stirred smooth with cold water; then put in the oysters and cook them till they are tender. When done, drain, and when cold cut into two-inch strips and pour a mayonnaise over them.

A boiled mayonnaise may be made as follows: one-fourth cup lemon juice, one-fourth cup olive-oil, one-fourth cup water, three eggs, one teaspoonful sugar, one-half teaspoonful salt, one-half teaspoonful celery salt. Mix all together in the inner cup of a double boiler. Bring to a boil slowly, stirring occasionally. When boiling, stir constantly until of the consistency of thick cream, then re-

move from the stove and set the dish in cold water.

Serve the salad on a lettuce leaf on one side of a small plate, and place a toasted granose biscuit on the other side.

Fig Puffs.—Two cups milk, two eggs, three cups of flour (about), one tablespoonful sugar, one-half teaspoonful salt, one-half cup figs, washed and cut in small dice. Beat together the milk, eggs, sugar, and salt. Then add sufficient flour to make a batter stiff enough to pile up slightly in the dish as it flows from the batter-whip, but not too stiff to flow freely. Beat five minutes, then fold in the figs, which have been dredged with flour, and bake at once in heated gem-irons.

Steamed Fruit Pudding. — This delicious pudding differs from the usual Christmas pudding in that it is not made rich and indigestible by the presence of a large amount of free fat of some kind. It is simply a combination of fruits and grains with a little sugar and egg: —

Three cups quartered and cored apples, one-fourth pound raisins, one-fourth pound figs, one cup seeded dates, two tablespoonfuls maple syrup, three-fourths cup hot water, one-half cup sugar, one and one-half cups toasted breadcrumbs, one teaspoonful vanilla, two eggs. Chop the fruit together, then add the other ingredients, adding the well-beaten eggs last. Steam four hours. Serve with raspberry sauce.

Raspberry Sauce.—One cup raspberry juice, one-half cup peach juice, one-half cup pineapple juice, sugar, one tablespoonful corn-starch. Mix the juices, sweeten to taste, heat to boiling, and thicken with the corn-starch stirred smooth with a little cold water.

Cocoanut Macaroons. — Three egg whites, one cup powdered sugar, one-

half pound shredded cocoanut. Beat the egg whites very stiff, beat in the powdered sugar a little at a time, stir in the cocoanut, form into balls the size of a walnut, and bake in a cool oven till lightly browned.

NATURE

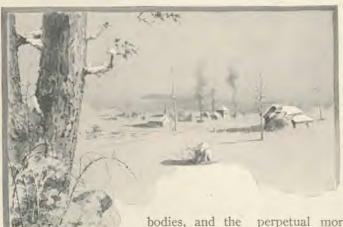
THERE are days which occur in this climate, at almost any season of the year, wherein the world reaches its perfection; when the air, the heavenly

find Nature to be the circumstance which dwarfs every other circumstance, and judges like a god all men that come to her. We have crept out of our close

and crowded houses into the night and morning, and we see what majestic beauties daily wrap us in their bosom. How willingly we would escape the barriers which render them comparatively impotent, escape the sophistication and second thought, and suffer Nature to entrance us. The tempered light of the woods is like a

perpetual morning, and is stimulating The anciently reported and heroic. spells of these places creep on us. The stems of pines, hemlocks, and oaks almost gleam like iron on the excited eye. The incommunicable trees begin to persuade us to live with them, and quit our life of solemn trifles. Here no history, or church, or state is interpolated on the divine sky and the immortal year. How easily we might walk onward into the opening landscape, absorbed by new pictures and by thoughts fast succeeding each other, until by degrees the recollection of home was crowded out of the mind, all memory obliterated by the tyranny of the present, and we were led in triumph by Nature.

These enchantments are medicinal; they sober and heal us. These are plain pleasures, kindly and native to us. We come to our own, and make friends with



earth make a harmony, as if Nature would indulge her offspring;

when, in these bleak upper sides of the planet, nothing is to desire that we have heard of the happiest latitudes, and we bask in the shining hours of Florida and Cuba; when everything that has life gives sign of satisfaction, and the cattle that lie on the ground seem to have great and tranquil thoughts. The solitary places do not seem quite lonely. At the gates of the forest, the surprised man of the world is forced to leave his city estimates of great and small, wise and foolish. The knapsack of custom falls off his back with the first step he takes into these precincts. Here is sanctity which shames our religions, and reality which discredits our heroes. Here we 624 NATURE

matter which the ambitious chatter of the schools would persuade us to despise. We never can part with it; the mind loves its old home; as water to our thirst, so is the rock, the ground, to our eyes and hands and feet. Cities give not the human senses room enough. We go out daily and nightly to feed the eyes on the horizon, and require so much scope, just as we need water for our bath. There are all degrees of natural influence, from these quarantine powers of Nature, up to her dearest and gravest ministrations to the imaginations and the soul. There is the bucket of cold water from the spring, the wood fire to which the chilled traveler rushes for safety, - and there is the sublime moral of autumn and of noon. We nestle in Nature, and draw our living as parasites from her roots and grains; and we receive glances from the heavenly bodies which call us to solitude.

It seems as if the day was not wholly profane in which we have given heed

to some natural object. The fall of snowflakes in a still air, preserving to each crystal its perfect form; the blowing of sleet over a wide sheet of water, and over plains; the waving rye field; the waving of acres of houstonia, whose innumerable florets whiten and ripple before the eye; the reflections of trees and flowers in grassy lakes; the musical, steaming, odorous south wind, which converts all trees to wind-harps; the crackling and spurting of hemlock in the flames, or of pine logs, which yield glory to the walls and faces in the sitting-room,- these are the music and pictures of the most ancient religion. He who knows the most, he who knows what sweets and virtues are in the ground, the waters, the plants, the heavens, and how to come at these enchantments, is the rich and royal man. Only as far as the masters of the world have called in Nature to their aid, can they reach the height of magnificence. -Ralph Waldo Emerson.

Carnivorous Animals as Vegetarians.

It is a curious fact that carnivorous animals, such as lions and tigers, are capable of living well on a purely vegetable diet. Wood, in his "Natural History," tells that the fakirs of India in some cases give their tame tigers no raw animal food, but simply supply them with a mixture of boiled rice and vegetables, their own diet. The effect of this diet upon the disposition of the animal is shown by the fact that the tigers so fed are sometimes allowed to roam at large.

On the other hand, animals naturally herbivorous may acquire the habit of eating flesh, in the same way that children acquire this habit, by training. Horses, oxen, and sheep may be taught to eat flesh. Goldsmith saw a sheep eating flesh; and a carnivorous sheep is now in London. Norwegian cows have also been known to eat fish greedily.

An Ancient Remedy for Baldness.

A remedy for baldness has recently been found by a learned Egyptologist, inscribed in a papyrus. It is said to have been used by King Chata, the second sovereign of the First Dynasty. The recipe is as follows:—

"A mixture of dogs' paws, dates, and asses' hoofs, ground up and cooked in oil. The head to be rubbed vigorously with the preparation."

SEVENTY-FOUR YEARS YOUNG

PROF. H. M. BUTLER, supervisor of music in the Newport public schools, presents a refreshing example of

youthful and useful old age. He has lost but two days during the forty-one years that he has been teaching, and his freedom from sick-



PROF. H. M. BUTLER

ness he attributes to observance of "the common laws of good health."

On the occasion of his seventy-fourth birthday, September 18, the following lines were written and read at the celebration by Dr. W. W. Anderson:—

- "We celebrate your natal day,
 And wish you many, many more;
 But what your age we will not say,
 Though we are told 'tis
- "It must be good to live so long,
 Nor yet to find life's pleasures o'er;
 To conquer troubles with a song,
 And jollify at ———.
- "It must be good to have such strength,
 And prospects bright for years before;
 To look behind to such a length,
 And forward, too, at ————.

- "A life of service given to song
 Must e'en the lapse of time ignore;
 It must the days of life prolong
 To be so spry at ———.
- "But lest these friends should curious be,
 And all your years require of me,
 I'll say, His useful life begun
 In eighteen hundred ————.
- "And if next year he is alive
 He'll have to own to _____;
 And if his vital timepiece ticks
 Another year, 'tis _____.
- "And still one more this side of heaven
 Will add them up to ____;
 And then if one year more he wait,
 He will have lived to ____.
- "Now, lest by chance the fact be told
 That he is years old,
 I haste to say what's on my tongue,—
 That he is years young.
- "So in his youth we'll jollify,
 Nor need to stop to ask him why
 He is so sound and well and sleek:
 The reason is not far to seek—
 So now of age we will not speak,
 But give the praise to Battle Creek."

CURIOUS FOODS

A MONG civilized nations the variety of tastes attracts but little attention. The vegetarians and the meat eaters each have their followers, and a recent school advocates less food and fewer meals, while there are countless fads for the delectation of the hungry.

That civilized man has missed some of the most toothsome dainties goes without saying, and it is evident that prejudice enters very largely into this. Thus, in California, the best fish, it is said, is the sculpin, but in the East this fish goes begging on account of its disagreeable appearance. In Arizona, Indian children may be seen catching ants and eating them; and in Mexico the honey ant is eagerly sought after by the natives, who eat the well-rounded, currant-like abdomen. In South America the large lizard, the iguana, is a delicacy, not to speak of the larger snakes, which in taste are like chicken.

Americans are inclined to regard the Chinese as a race of rat eaters, and denounce the animal as unclean, at the same time consuming tons yearly of the most loathsome of all animals—the hog. The rat is careful of its toilet, cleaning itself constantly; but the hog is the only animal of so-called intelligence that revels in filth and prefers it to cleanliness. The common skunk, owing to its peculiar and offensive glands, will never be popular as food, yet its flesh is not only good, but delicious, according to various connoisseurs who have eaten it.

That insects do not enter more into the food supplies of nations is due to prejudice. Grasshoppers are eaten by some Western tribes. Ground up, they make a meal that is said to be both nourishing and agreeable. Many a white man has pressed through a country, believing himself nearly starving, as large game was not to be had, when worms and various insects were at hand. During the flight of locusts, Indians sometimes collect them in bags, wash them, and cook them for a meal.

The most singular food, in all probability, is the larvæ of a fly, common in certain portions of California, and known as *Ephydra*. This insect is found in such vast quantities in Lake Mono, California, that it is washed upon the shores in vast windrows, and can be collected by bushels. The water of Mono is very singular, seemingly very heavy and smooth, like oil; so much so that it re-

sists ordinary wind and refuses to become ruffled. When the larvæ begin to appear, the Indians gather from far and near and scrape them up, place the worm-like creatures on cloths and racks in the sun and dry them, when they are beaten up and husked, looking then like rice. The Indians call the food koo-chah-bee, and many bushels are collected at this time. That larvæ are nutritious is shown by the condition of the Indians, who soon grow fat on the rich diet. Many birds are attracted by the larvæ, and gorge themselves with the singular food.

On Lake Texcoco, in Mexico, a curious Hy is found, which also is eaten by the natives, and is known as ahuatl. eggs of the insect, which are deposited on sedges, are also collected and eaten for food. On Lake Chalco a certain sedge is cultivated on which the eggs of a species of fly are deposited. Bundles are made of these and placed in Lake Texcoco for the purpose, and, when covered, the sedge is beaten over pieces of cloth and the eggs secured. These are collected and ground into a meal, also called ahuatl. They are in great demand on fast days when fish is required, the insects or eggs not being considered flesh, as they come from the water. The food is made into small cakes, and tastes not unlike caviare. Not only the eggs, but the larvæ themselves, disagreeablelooking worms, are used as food under the hame of puxi.

The civilized man perhaps turns from such food with disgust, but it is well to remember that epicures in many countries, and especially in England and America, are particularly fond of cheese when inhabited by the larvæ of a very common fly. In the United States the large octopus or squid, common on the Pacific coast, offends the American palate, but the Italian, Frenchman, or Portuguese eats it with avidity and considers

it a delicacy. The meat is white like chicken, and has the flavor of crab.

The question of national tastes is an interesting one, and the contrast between those of China and America is remarkable. The objects displayed in the Chinese quarter as dainties are often repugnant to Americans. We find the Chinaman selling eggs of unknown age, especially ducks' eggs containing ducklings ready to be hatched. Shark fins - a tough, disagreeable food - are in demand, while deer horns in the velvet, and lizards of various kinds, are eaten. The nest of the swallow, with its embedded secretion of the mouth glands of the bird, is worth nearly its weight in gold. Trepang, the tough, impossible holothurian, is eaten, and its collection is an important industry along the Malay coast, valued at at least \$100,000 per annum.

In France the sea anemone is used as food; stuffed like peppers and boiled, it calls to mind crab or cray-fish. The echinus of various species is also used cooked in the shell, like an egg, and eaten with a spoon.

Certain Indians consider earthworms a dainty. They are dried and rolled together into a peculiar flour. In Bahama and some of the Florida keys, the conch—by far the toughest food known—is eaten; it is more like India rubber than anything else, having to be beaten and pounded before it can be masticated or even cooked.—Scientific American.

WINTER SUN-BATHING

BY E. E. ADAMS

THE climate of the northern United States is one of extremes, characterized by the naturalist Buffon as an "excessive" climate. Summers of intense and debilitating heat are followed by harsh and almost Arctic winters. It is not, therefore, surprising that those who have the means and the time and strength should migrate with the swallows to the more genial realms of the sunny South.

Those who can thus flit from clime to clime in search of a suitable climate are, however, comparatively few. Yet within reach of all is a material abundant and comparatively cheap, which will bring a bit of the sunny South up North for the enjoyment of those who can not leave their Northern homes. This material, which makes it possible for us to grow the flowers and fruits of the tropics under the skies of the North, also enables us to

counteract the ill effects of our severities of climate, and to isolate a summer-like temperature independent of changing seasons.

"If a man puts a glass roof over his



By termission of "Country Life."

A Part of a Veranda Converted into a Solarium

garden," says one, "it is equivalent to a removal fifteen or twenty degrees



Dr permission of Country Life."

Side View of Veranda Solarium

nearer the equator." Glass has the property of allowing the transmitted heat rays of the sun to pass through it, while preventing the free escape of the heat. Consequently, by its means, sunshine can be bottled up, as it were, and enjoyed, without exposure, by the feeble, the aged, and weather-sensitive invalid.

The sun-parlor, or solarium, is one of the greatest luxuries of a northern home. The accompanying cuts show the simplicity and ease with which one can be constructed, at no great expense, by enclosing a portion of the veranda. The solarium here pictured seldom requires any artificial heat, the heat of the sun being usually quite sufficient for comfort. A section of any porch or veranda may be set apart in this manner, enclosed with double windows and provided with a door. If artificial heat is necessary, a small gas or oil stove will supply all that is required.

Sunlight is as necessary for the human as for the plant organization. The sunparlor provides facilities for winter sunbathing — for absorbing the vitalizing rays of the sun and getting the full benefit of its light and heat, with no exposure to cold winds. When artificial heat is added, one can, in such an apartment, surround himself with beautiful foliage and bloom, even in the depths of winter.



FLORIDA IN MICHIGAN



THE BATTLE CREEK SANITARIUM SUN-PARLOR

A tender plant enfeebled by exposure, as a rule makes a rapid recovery when placed beneath the shelter of a glass roof. Heliotherapy, or sun-cure, is now recognized as an important branch of human therapeutics. An enthusiastic writer,

quoting the Scotch proverb, "There was never a stinging nettle that hadn't a dockin-leaf close beside it," goes so far as to say that the "dockin-leaf" that is, to cure the wounds caused by the stinging nettles of harsh climates, is the glass pane.

THE TRUE CAUSE OF PHYSICAL DEGENERATION

In connection with the discussion which has recently been going on in England with reference to the national physical degeneration, and the formation of a New League of Physical Education and Improvement, Dr. Haig published in the National Review some striking statements as to the true and only cause of this degeneracy. The following is an abstract of an article in which he points out the only means of checking the rapid race deterioration:—

"I can not but feel, as one of those who gave evidence before the Inter-Departmental Committee on Physical Degeneration, that unless one of the most important causes of the low condition of certain classes is better understood, and unless special attention is directed to this subject in the efforts of the proposed League, only very little will be accomplished. A great deal is said under the heading, 'Objects of the League,' about physical exercises, but little or nothing about that on which physical power depends—the food of the people. Something is indeed said about supplying nutritious food in place of alcohol, but as wrong food is practically the underlying cause of all alcoholism, this obviously

does not go far enough. To my mind there is but one great cause, viz., unnatural food, and nearly all the other so-called causes are results of this; e. g., alcoholism is a result; laziness and stupidity are other results. Sir Lauder Brunton speaks of the 'carelessness, inertness, laziness, stupidity, folly, and ingratitude' of the lowest classes; and here again we have, to my mind, but another result of wrong and unnatural food.

"Since food is the basis of all physical power, and wrong food is at least the possible cause of many of our present diseases, miseries, and misfortunes, people will, I believe, begin to consider how many of our present miseries may possibly be removed in the future by proper and natural food. 'To the solid ground of Nature trusts the soul that builds for aye.' And Nature says in a way that there is no misunderstanding that man is a frugivorous and not a carnivorous animal. There are some I know who fondly believe that man is not an animal at all, but some sort of angel; but to these I would say very shortly, 'Look out on the world to-day, and see if you can see anything of the angel anywhere about it.' To return, then, to Nature's teaching and to regard man as a frugivorous animal, who has been making the terrible mistake of eating the foods which are right and proper only for a carnivorous animal, we have no difficulty in understanding that some seventy-five per cent of the most terrible diseases under which we suffer (they are not, in fact, diseases at all, but poisonings by unnatural food), our increasing insanity, our increasing cancer, our debility, and our deterioration, may be due not improbably to this neglect of Nature's teaching.

"We can see, also, that this may give a very simple and complete explanation of the fact that all these deadly 'diseases,'

this sorrow and suffering, have been increasing by leaps and bounds during the past thirty years, as we have tended to take ever more and more meat, with the other stimulants and poisons it has brought in its train, and have thus gone ever further and further along the wrong path. We are rapidly getting into a position from which, in the nature of things, there can be no return. Indeed, when I look upon these effects and their causes, and the mental and moral blindness which is one of their least-noticed, but most disastrous, results, I am irresistibly reminded of that terrible aphorism, 'Quem Deus perdere vult prius dementat.'

" If anything is to be done for the physical improvement of our race, it will not be by attending to exercises and neglecting that from which muscle power is obtained; namely, food. If alcoholism is to be conquered, it can be done only by attacking its cause. And the same for our ever-increasing mental, moral, and physical debility and decay; we must look and see that these things have a meaning and an explanation; that their increase is the result of a change in the national foods, which during the past thirty years has become so much more marked. We must decide once for all whether we will follow Nature, or continue, in spite of her present whips and scorpions, to go further against her teaching to inevitable destruction. The evils under which we suffer to-day are the practical results of simple causes, some of the effects of which are quite visible to the unaided eye. They are growing with each increase in the power of these causes, and if we are to make any headway at all against them, we must not be content to alter a few results, while we leave the real fons et origo mali unnoticed."

RATIONAL TREATMENT OF TUBERCULOSIS OF THE LUNGS

BY HERBERT OSSIG, M. D.

(Continued)

2. RUNNING

- (a) For the bedridden patient of the first type, running is, of course, entirely out of the question.
- (b) Also the consumptive of the second type is barred from this splendid lung exercise; as obviously he must first bend all his energies toward mastering walking and deep breathing, which are indispensable preliminaries to running, gradually and methodically preparing the heart and lungs for more vigorous work.
- (c) But our friend of the third type, he may and must embrace running as one of the quickest means of bidding defiance and halt to the consuming ravages within his body.

"The idea of advising a tubercular patient to run! Why, it's the height of criminal negligence and folly! Criminal, because deep breathing will disseminate throughout the lungs the yet local disease; foolish, because a weak person is not able to run, even though he were willing to make the effort." Thus I hear both physicians and laymen exclaim. Nevertheless, I can well afford to smile at their denunciation, and composedly continue to recommend running; for I have given it a most faithful and thorough trial, with extraordinarily good results. I know from personal experience in running, extending over a period of four years, just what it means to run, both when weak and sick, and when strong and well; whereas the great majority of those who allow themselves a hasty opinion, never have tested running at all, or only for a few days, and therefore know not whereof they speak. The human body, when given a chance to develop naturally, possesses wonderful re-creating powers, and does not always conform to the musty theories hatched out at the writing-desk in an ill-ventilated room. And with regard to the second objection raised against running, actual trials by other consumptives, as well as by myself, permit me to state firmly that even weak patients, capable of walking from half a mile to two miles, are also able to run, if shown the right way, and that the running increases their strength and health.

Then, is there not some danger connected with the adoption of running as an exercise? - Certainly there is! Even a great danger. Not, however, with running per se, but with improper running and a wrong mode of application to the individual patient. Indeed, the danger is so great that I would not dare . allow the ordinary tubercular patient, given to excesses because of lack of selfcontrol, to be his own judge. He ought to place himself under the care of a person experienced in running and commanding a good knowledge of physical exercises. The more intelligent patient, though, of good judgment and self-restraint, can venture to be his own trainer if he heeds the precautions which will follow.

Of the many men who are interested in physical rejuvenation, there are few who are really regular in their practises. Enthusiasm having become aroused through a lecture or a book, they at first work hard. But soon their fervor slackens, and they settle down into a life of physical inac-

tivity and decay. And why is this so? - Because these good people fancy they can "store up" strength and health for the rest of life. They overlook the fact that the same conditions which necessitate exercise to-day, still exist after one year, five, ten, fifty, one hundred years. Daily we die, daily we are born again; every second our body is torn down, every second we are reconstructed. The end-products of our never-ceasing fire must be thrown out of our system through the intestines, kidneys, lungs, and skin every day, else they accumulate with amazing rapidity, and sickness results. Plenty of oxygen must be introduced into the blood every minute in order to keep this fire at its height, to bring about as complete a combustion as possible; so that, since it is daily exercise alone which can bring about a continuous satisfactory oxygenation of the blood through a sufficient degree of deep breathing, and since we die daily, hourly, every minute and second, it stands to reason that there can not be such a thing as exercising and breathing deep "in advance." No more is this possible than sleeping, eating, or drinking in advance. Our exercise and deep breathing of today will keep us in good condition only to-day, and will not, can not warrant good health for to-morrow. We must exercise and breathe deep to-morrow to remove the waste produced by to-morrow's catabolism.

It is quite justifiable, though, to use the term "storing of vitality" in the sense of training the body up to normal structural and functional health. Thus, for instance, one stores up riches of health by raising prolapsed viscera to their proper place; by causing a dilated stomach or colon to shrink to its natural size and lumen; by restoring excessive or insufficient gastric or intestinal glandular activity to normal. So, if this

year's training results in the strengthening of the abdominal and side muscles, and thereby in a return of fallen-down organs to their proper site; if a wellregulated diet, both as to quantity and quality, lessens the capacity and caliber of the once stretched stomach and colon; if healthful glandular function is regained,- then, indeed, vitality is stored up for years to come. For whether we exercise, breathe deep, pay attention to diet, etc., after five or ten years or not, we will always reap the rewards of this year's endeavors. If in later years we continue to take care of ourselves, then we will be all the stronger and healthier because of this year's efforts; and if in future years we become careless and indifferent, why then we will be less weak and sick than we would have become had we also omitted this year's work of rejuvenation. Although the body is very jealous and demands a constant watchfulness on our part, year in and year out, yet it is also very thankful for past good treatment, proving this by the fact that the one who has stored vitality in his youth, for instance by strict chastity, can with greater impunity, or rather less punishment, disregard the laws of hygiene. But though we may be rewarded for the training of a year or two, even the highest degree of structural and functional health will continue but a short time and ultimately crumble to pieces if watchfulness be replaced by negligence. And as to the removal of the poisonous endproducts of the never-ceasing destructive metabolism, we must exercise and breathe deep after one year, ten, fifty, one hundred years, for exactly the same reasons which demand activity and oxygenation now, to-day. This means, in other words, that we must not only sleep and rest, but also work, work, work, and breathe deep every year, every month, every day. A person who for a time embraces physical culture to rid himself of various disturbances, but afterward bids exercise good-by because he becomes lazy, and because he hopes that somehow the good results will continue, and yet wonders why his former ailments reappear, never understood the philosophy of exercise.

"What about running, then? Do you mean to say that a tubercular patient should run every day, every week, every month, every year, yea, all his life? Is that what you expect him to do?"- Precisely; that is just it! The lung area of a consumptive, if the disease has lasted long enough and resulted in actual destruction of lung tissue, is diminished, so that the body receives less oxygen than the bulk of his frame calls for. How, then, can he oxygenate his blood sufficiently? He can not! This is impossible if he gives way to his ever great inclination to breathe shallow. Only by being more careful yet about pure air, deep breathing, and exercise than the ordinary individual needs to be, can he manage to live and be well and strong; great though the efforts of even the latter (the non-consumptive, as seen above) ought to be to pump the blood full of oxygen every day. Introducing at each breath, on account of the lessened lung area, a smaller amount of oxygen into the blood than the body actually requires, the only alternative left to the consumptive who wishes to acquire and retain a manly or womanly physique, is to ventilate the blood several times a day at regular intervals. Only two ways from which to choose are open to the tubercular patient. Either he continues to breathe shallow,- in which case he will

remain an emaciated weakling, almost sure to die of tuberculosis or any other disease happening to come along,—or else he exercises and breathes deep daily, at stated intervals, with clock-like regularity—when he will digest and assimilate his food, get strong, and regain normal weight, becoming able to defy any and all diseases.

So I would advise a consumptive to make up his mind right away, just now, this very minute, not only to run a month or so, but all his life. First, for the reasons just mentioned; secondly, because any other good intentions, as, for example, to run only when he feels like it or when the weather is fair, are sure to come to naught. A person who determines to run a year or so, will sooner or later surely become slack, and finally give up long before the end of the set term. But the man who once grasps the scientific necessity of running, and has made his decision for a life-time, why, he has no trouble whatever to stick to his running. Month in, month out, year in, year out, he not only eats with great regularity, but also runs and breathes as a matter of course. Just as he accepts going to bed as a matter of necessity, he runs because it is absolutely necessary, and because he delights in this noble sport.

Therefore, my friend of the third type, unless you can resolve to run not only for your life, but also all your life, don't begin at all, for pitiful failure is sure to follow. But if you are willing to accept running as a daily routine matter all through your life, then come along and we will find a way by which we can master running and make it a pleasant means of restoring health and strength.

The Socialization of Domestic Industry.

It appears that the "new woman" is to be completely emancipated from all domestic duties. The only way to "elevate" housework is to do away with it completely, as far as she is concerned. This attitude creates a demand for various syndicates, which will undertake to do the housework, catering, cooking, and mothering of the community. How this demand is being supplied, and the progress that is being and may be made in "the socializing of domestic industry," was described by Mrs. Charlotte P. Gilman in a lecture before the New York Chautauqua Assembly.

The problem of feeding is being met by companies which deliver to their patrons, at their homes, prepared dinners in patent receptacles that keep the food hot, or cold, for six or seven hours. Catering firms are common in all our cities. In the country, where the population is scattered, it is suggested that the scheme could be carried out of having a central kitchen with some mechanical device for delivery, similar to the cash baskets in our large stores.

The cleaning is already done to a considerable extent outside of the home, in our large cities. There are the laundries, the carpet-cleaning and window-cleaning firms. In the larger cities a business is made of sending women to dust bricabrac. And there is the new exhaust sweeping system (invented by a man), operated by a carpet sweeper that sucks up the dirt without raising the dust from one place and putting it in another, as we always do.

"What is to happen to the children?" asks Mrs. Gilman. "Nothing more nor less than we already have for the older ones — a baby-garten. . . . Do you mean the children are to be separated from their mothers? Just as much as the babies in

the kindergarten. For a certain number of hours in the day, while the mother is occupied with her work, the baby would not be under the charge of an ignorant servant, but of a college-bred, trained professional, knowing more about babies than the mothers; and the babies would be, say six hours a day, in this nursery."

The advantages that are to result from this renunciation of the domestic work of the home, both to the woman and to the home, are thus described by Mrs. Gilman: "When our private life is as far as possible taken off our hands, we shall have time to consider our public duties. Now we have not time. Any woman who at present desires to serve the public is likely to neglect the home. But when the home is more economically attended to, we shall have time to serve the world."

Lard from Diseased Pigs.

It is well known to the experienced farmer that the appearance of cholera symptoms among his hogs usually means the loss of the whole herd. Consequently, the first thought of the unprincipled farmer, on discovering cholera, is to dispose of his hogs with all speed, to prevent their dying on his hands. According to a writer in *Success*, these diseased hogs are brought into Chicago by the carload. And what then becomes of them?

"Those that have died in transit are thrown out on the receiving platform, and the living are hurried off to the shambles. The stock cars are soon moved away, and one or more box cars are backed in by a switch engine. The hogs—dead from cholera—are thrown into the cars, and the switch engine pulls out with them. Where are those cars going? Now there is an obscure little town over the Indiana line which bears the imposing name of Globe. If the packers were

asked what they know about Globe, they would probably say that they have established rendering tanks there for reducing diseased meat to grease and fertilizers. They would hardly add that lard is manufactured at Globe in considerable quantities. They are scarcely likely to explain why they go to the expense of 'rendering' this meat in another State. The reader will have to draw his own conclusions."

That Chilly Feeling.

Most people know what it is to experience uncomfortable and unaccountable chilly sensations, even though sitting in a warm room with apparently no draft. The following incident, related by a writer, suggests a cause for this strange chilliness, and the way in which it may be avoided:—

One evening last winter, a certain woman remarked to her husband, "I feel chilly; won't you fix the furnace?" Her husband said: "That's all nonsense, my dear. Look at the thermometer!" The thermometer registered 72°, and a good current of hot air was coming in at the register. But a maiden aunt who was visiting at the house, and who was in her way a privileged character, rose without speaking, and opened the door leading to the kitchen. The teakettle was steaming away merrily and the air of the kitchen, although warm, was very different from that of the living room. Not only did she leave the door open, but she poured out a panful of boiling water and placed it upon the register in the parlor. "What are you taking all that trouble for?" demanded the man of the house.

"You'll find the chilly feelings will go away as soon as the air in this room takes up a little moisture," was the reply. "I was a little chilly myself. As you say, it is warm enough, but such a dry air takes away all the moisture of the body surface and gives us that creepy, chilly feeling. A little moisture in the air of a furnace-heated room will do more for comfort than ten degrees of extra heat."

"Let the teakettle boil, then," said the man of the house. "Give us another easy way to save coal!"

The Latest Fashion in Skin Color.

According to a London beauty specialist, the "peaches and cream" girl must now give place to the "nut-brown maid." The unnatural pallor of which women have been so proud that they have even powdered their faces to make themselves look paler, is no longer fashionable. The favorite tone for the complexion now is the Japanese tint,—a clear brown of medium hue.

The popularity of outdoor life and sports among women at the present time has doubtless influenced fashion in this particular. "I advise my clients," says one beauty doctor, "to automobile as much as possible in the open air, to tone the skin to the color of a ripe olive." Since the skin of one who spends much time out of doors naturally acquires a brown tint, and man was meant to be an outdoor animal, fashion is for once on the side of Nature.

There will doubtless be many who will seek to acquire the fashionable Jap tint illegitimately. "Changing the color of the skin," says the specialist, "is by no means difficult," by the use of various cosmetics. But no one need resort to artificial means. The only way to acquire a really healthy-looking nut-brown tint is by the natural method of an outdoor life.

This brown tint is an indication of the activity of the pigment cells of the skin — a condition necessary for health. It also denotes activity of the blood-making,

tissue-forming, and nerve-forming cells, all of which are active when activity of the pigment cells is induced by exposure to the air.

The Importance of Personal Cleanliness.

The success of the Japanese in treating their wounded soldiers has been one of the marvels of the Russo-Japanese War. In an address before the fourteenth convention of military surgeons of the United States, which was declared by the Medical Director of the United States navy to be the most valuable contribution of modern times to naval surgery, Surgeon-General S. Suzuki revealed one of the chief secrets of this successful treatment. "Most of our success in the treatment of wounds," he said, "I ascribe to the fact that before every engagement I ordered each member of the crew to bathe and put on perfectly clean underclothing. In a great many shot wounds, fragments of clothing are carried into the body, and our insistence upon clean underclothing prevented many cases of blood-poisoning among our wounded."

Boils and pimples are the result of infection from skin germs, which constantly swarm upon the surface of the body. When the clothing is not often changed, and when bathing is neglected, the germs accumulate and increase in virulence. The dispensary doctor always says to the man who comes in with a boil on his back, "Change your undershirt every day."

"The Root of the Devil's Grass."

The Cossacks of the Russian army are not noted for squeamishness or estheticism, nor are they examples of hygienic living, yet they draw the line at tobacco smoking. Said a burly old Cossack officer, in an interview described by Ernest Poole, in Everybody's: "We hardly ever

touch that devil's poison, tobacco. We call it the root of the devil's grass. You never see a Cossack smoking."

The same old hardy veteran unburdened his mind as to the influence of one's attitude of mind in inducing sickness. After denouncing in rather strong terms the folly of those who "get sick just from thinking about it," he said: "Look at me! I never get sick. Old as I am, I have often slept all night right in the mud, with the rain pouring on me, and I have not even taken cold. That's what comes of not having doctors. You never see a doctor in a Cossack regiment—only a veterinary for our horses, because horses can't pray to God."

Pernicious Waste.

A well-educated Englishman, I mean one well-educated in general subjects, would wonder beyond measure if he realized the enormous amount of work an Indian can do on a mere handful of rice and a few dates. But his wonder would be far more increased if, in the physiological laboratory, he were shown and made to understand three facts: (1) The exceedingly small amount of flesh-forming matter that is called for to make up the waste of the muscular organs; (2) the enormous amount of wasted material that is thrown off or laid by without ever having been applied to any useful purpose in the body; (3) the tremendous measure of living energy that has been expended in throwing off from the body substances which ought never to have been put into it .- Sir Benjamin Ward Richardson.

TRUTH is not wholly truth until it is expressed in a life. Energy is idle until it is transformed into work. Character is not character until evidenced in conduct.—Paul Tyner.

School of Health School of Health

BREATH POISONING

BY J. H. KELLOGG, M. D.

HE purpose of breathing is to obtain from the air a supply of oxygen, which the blood takes up and carries to the tissues. Oxygen is one of the most essential of all the materials required for the support of life. Its function in the body is to set free or to bring into action the energy stored in the tissues in the form of digested and assimilated food. The amount of oxygen necessarily required for this purpose is about one and one-fourth cubic inches for each breath. As the blood passes through the lungs, this amount is absorbed when the breathing movements are sufficiently deep and active, and the air inhaled is of good quality. In place of the one and onefourth cubic inches of oxygen taken into the blood, a cubic inch of carbonic acid gas is given off, and along with it are thrown off various other still more poisonous substances which find a natural exit through the lungs. The amount of these combined poisons thrown off with a single breath is sufficient to contaminate and render unfit to breathe three cubic feet, or three-fourths of a barrel, of air. Counting an average of twenty breaths a minute for children and adults, the amount of air contaminated, per minute, would be three times twenty, or sixty cubic feet, or one cubic foot a second.

Here is an important fact which may be easily remembered, and made of practical use as a means of determining the amount of fresh air required for a family or the ventilation of a schoolroom or a church. The importance of a constant supply of fresh air may be readily illustrated by simply holding the breath. Very few persons have sufficient resolution to stop breathing for two or three minutes, though experienced divers are sometimes able to hold their breath for a somewhat longer time. The breathlessness which results from a few moments' active exercise is due to the urgent demand of the tissues for oxygen.

It is not, however, the need of oxygen which renders important a constant and adequate supply of air by means of ventilation. Ventilation is needed chiefly for the purpose of washing away the impurities which have been thrown off from the lungs, and which have rendered the air of the occupied apartment unfit for further breathing. There is an abundance of oxygen, but it is impure and unfit to breathe.

Every one should become intelligent in relation to the matter of ventilation, and should appreciate its importance. Vast and irreparable injury frequently results from the confinement of several scores or hundreds of people in a schoolroom, church, or lecture-room without adequate means of removing the impurities thrown off from their lungs and bodies. The same air being breathed over and over, becomes densely charged with poisons, which render the blood impure, lessen the bodily resistance, and induce

susceptibility to taking cold and to infection with the germs of pneumonia, consumption, and other diseases always present in a very crowded audience-room.

Suppose, for example, a thousand persons are seated in a room forty feet in width, sixty in length, and fifteen in height; how long a time would elapse before the air of such a room would become unfit for further respiration? Remembering that each person spoils one foot of air every second, it is clear that one thousand cubic feet of air will be contaminated for every second that the room is occupied. To ascertain the number of seconds which would elapse before the entire air contained in the room will be contaminated, so that it is unfit for

further breathing, we have only to divide the cubic contents of the room by one thousand. Multiplying, we have 60 x 40 x 15 equals 36,000, the number of cubic feet. This, divided by one thousand, gives thirty-six as the number of seconds. Thus it appears that with closed doors and windows, breath poisoning of the audience would begin at the end of thirtysix seconds, or less than one minute. The condition of the air in such a room at the end of an hour can not be adequately pictured in words, and yet hundreds of audiences are daily subjected to just such inhumane treatment through the ignorance or stupidity of architects, or the carelessness of janitors, or the criminal negligence of both.

FOR WINTER WEAR

BY CAROLYN GEISEL, M. D.

W HAT weight of clothing and how much will be needed to keep you warm this wintry weather depends almost wholly upon the treatment you have given your skin through the summer. The sluggish skin circulation that is yours if the cold bath has been neglected or the sun bath forgotten, will only be accentuated by the thick padding of wool which you now feel compelled to wear next the skin; and an already feeble skin is made more feeble by the poultice effect of the heavy, sometimes damp (from perspiration) flannel packed over it.

But having been neglectful or even ignorant in this matter, or perhaps too busy to attend to it, what can you do to repair the mischief? The summer is past, and we fancy we hear you asking yourself questions like these: "Is it not too late to do that which will help my skin to keep out the winter chill? Must

I not now depend fully upon clothing, and not upon myself for warmth?" We concede that it is late, but not too late, to apply tonic treatment to the body's surface that shall help you to put on, as do the trees, a wintry, somewhat bark-like skin-covering in lieu of so much flannel. If you go to work in earnest, with cold mitten friction applied every morning, using water that is cold, but taking the bath in a room not too cold, you will be able after a week or ten days of mittenfriction treatment to take cold towel rubs: and after another ten days, if you are in possession of a comfortably warm bathroom, you will be able perhaps to plunge into the tub, using the water just as it comes from the faucet. If you find yourself too delicate for this, which delicacy is attested by your inability to react, or to warm up, after the bath, you still need not be discouraged; for by standing with

your feet in a tub of hot water, you may take a cold towel rub to the whole body, using water just as it comes from the faucet. This hot-foot-bath precaution helps out very markedly the feeble folk who react slowly. Then if you will take pains after your morning bath to give the skin a good oil rub, you will find that the inunction prevents that dryness of skin which adds to the sensitiveness to cold. An oily condition of skin is natural, though imperceptible, and helps more than is commonly appreciated to keep out the "shivers."

Now what next? Having gotten the skin in as vigorous a condition as is possible at this late day, you can help to keep it vigorous by putting on a garment of linen, preferably the Diemel linen mesh. Or if this is not easily procured, you will do well to wear a very thin cotton under the flannel. The flannel may be lighter in weight than we have been taught was necessary; for it is an old, old principle, thoroughly established, that two thin layers of clothing are warmer than a single thick one. Three things are accomplished by the wearing of this linen garment, instead of the flannel, next the skin: First of all, the skin is allowed to breathe more freely through the open meshes of the Diemel linen; secondly, the pungency of the heat, that is to say, its

poultice effect, is prevented; but most important of all is the cleanliness of the garment itself, and therefore of the body over which the garment is worn. This linen (or even cotton if you must) can be boiled in the washing, and so made really germ free,— a thing quite impossible with flannel, which must be handled so carefully in the washing lest it shrink.

A final important point in this question of keeping warm in winter is the equal distribution of clothing. If you notice the common arrangement of clothing, your own as well as any one's else, you will find that over against the several layers (twelve on the average) of material which are folded about the torrid zone of the body, - that is to say, the trunk,- there is frequently but one thickness, or perhaps two, of clothing covering the extremities, which are, of course, the most difficult to reach from the pumping-station. The warm gloves, the woolen stockings, and stout boots, with equestrian tights to the lower limbs,these are important articles for winter wear; and if, as you put these on, you will take off several of the many needless layers of racking around the trunk, you will find the circulation of your body rapidly coming back to the normal, when keeping warm will be easy, and getting cold almost impossible.

IRRIGATION OF THE STOMACH, OR GASTRIC LAVAGE

W ASHING of the stomach is accomplished by means of a long rubber tube especially constructed for the purpose. In an emergency, ordinary tubing, such as is employed with a fountain douche, might be used, but such tubing is too small, and can not always be easily introduced into the stomach.

The tube may be introduced with the patient either sitting or lying. The first time it is employed, it is better that the patient should be in the lying position, with the head and shoulders raised. The tube is passed to the back part of the throat. The patient makes the movements of swallowing, and meanwhile the



GASTRIC IRRIGATOR

tube is gently pushed along the esophagus to the stomach. A mark on the tube indicates when it has been introduced far enough. When this point is reached, a large funnel is quickly connected with the end of the tube, pure water is poured into it, and the funnel is raised so as to increase the pressure. The water slowly passes into the stomach. . If the patient is much disturbed, he should be assured that no harm will come to him, and should be urged to take

long, deep breaths. Gastric lavage should not be attempted by one who has not been properly instructed, and should ordinarily be used under the advice of a physician.

The stomach may be greatly damaged by the habitual use of the stomach-tube, although when required, as in the diagnosis of gastric disorders and in the treatment of certain forms of disease of the stomach, it is a most invaluable measure.

In withdrawal of the stomach-tube, care must be taken to prevent the fluid or food from running out of the tube into the larynx. This is easily done by clinching the tube tightly between the thumb and finger. It is well to grasp the tube in two places, so as to make sure that it is held securely. The patient should avoid drawing the breath in while the tube is being drawn out.

In washing the stomach, pure water at ordinary temperature should be employed, except in cases of gastric catarrh, in which water at a temperature of 104° to 110° may be advantageously used, and in cases of ulcer of the stomach, when ice-water may sometimes be employed, although in such cases gastric lavage is seldom indicated.

Gastric irrigation is a most useful measure in case of obstruction of the bowels, often causing the obstruction to disappear, even when the enema and other measures have failed.

In cases in which considerable quantities of opium and other narcotic poisons have been swallowed, prompt washing of the stomach may often save life, on account of the slowness with which absorption takes place from the stomach. Hot irrigation of the stomach has been



GASTRIC LAVAGE



EMPTYING THE STOMACH



WITHDRAWING THE TUBE

recommended for collapse, as a means of much more convenient and equally effirelieving shock, but the hot enema is cacious in such cases.

SCHOOL OF HEALTH SEARCH QUESTIONS

BREATH POISONING

- I. Describe the function of oxygen in the body.
- 2. What amount of oxygen is required for each breath?
- 3. How large a quantity of air is contaminated by a single breath?
- 4. What are the effects of breathing vitiated air?

FOR WINTER WEAR

- 1. Describe graduated treatment that will train the skin to resist the winter chill.
- 2. Mention a simple measure that helps feeble folk to react from the cold bath.
- 3. What is the best material for wearing next the skin?
 - 4. Name three advantages gained by

wearing linen or cotton, instead of flannel?

5. Why should the extremities be at least as warmly clothed as the trunk?

IRRIGATION OF THE STOMACH, OR GASTRIC LAVAGE

- 1. In what position may gastric lavage best be taken for the first time?
 - 2. Describe the process.
- 3. What may result from habitual use of the stomach-tube?
- 4. For what purpose is it a valuable measure?
- 5. What special precaution should be taken in withdrawing the tube from the
- 6. In what cases may water at a high temperature be used for lavage?
 - 7. When may ice-water be employed?

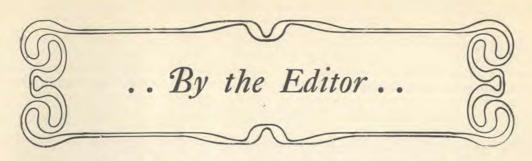
FORBEARANCE

HAST thou named all the birds without a gun? Loved the wood-rose, and left it on its stalk? At rich men's tables eaten bread and pulse? Unarmed faced danger with a heart of trust? And loved so well a high behavior In man or maid that you from speech refrained. Nobility more nobly to repay? -O, be my friend, and teach me to be thine.

- Emerson.

A Nature Story

The had all fallen, and the were quite naked. The while shivered as the cold wind blew over it. The and the stayed in the and were getting pale and puny. Then Mother Nature said, "I will make a warm for the and the and bring the boy and the girl outdoors to play in the fresh air." Soon the air was filled with tiny, feathery white E They settled softly on the and the and covered them up from the cold wind. The boy and the girl looked out of the The boy said, "Hooray!" and the girl said, "Goody!" Then they ran out with their and began to clear a They made a by the side of a They took their and slid down hill. Their cheeks, were red, and their * sparkled. When was ready, how hungry they were! And Mother Nature smiled to see the children so rosy and happy. E. E. A.



A REMARKABLE FEAT PERFORMED BY A MAN OF SEVENTY-THREE

THE following note, which we quote from the New York *Times*, speaks for itself in answer to the absurd argument often made that a fleshless diet is insufficient to support health, strength, and vigor:—

old man's remarkable feat At Seventy-three He Climbs a Seventy-foot Pole — A Vegetarian

At Putnam Valley, five miles from Peekskill, a New York business man, in the early part of the summer, put up a splendid flag-pole, and on it hoisted a large flag. Not long after, the flag and halliards came down "by the run," the pulley at the top having broken. Last week a man seventy-three years old, living near the hill on which the flag-pole stands, having read in The Times (of which he is a constant reader from "way back") a suggestion that all having flags should display them as a token of satisfaction at the conclusion of one of the most bloody wars ever known, tried to induce some of the active young men of the neighborhood to climb the pole and put a pulley on the top. Not succeeding, he declared that he would do it himself. That raised a laugh at what was thought to be a good joke. On Saturday, however,

the old man, having procured a pulley, climbed the pole, fastened the pulley, put the end of the halliards through, and brought the end down. The pole being visible for miles, I need hardly say that the act was witnessed by a considerable number of spectators, who would have thought it more wonderful had they known that the pole had no projections on which a foot could get the slightest hold, and that the climber used nothing like the attachments worn by linemen on the feet and ankles.

The most important part of this story, is the claim made by the man who did the climbing, that he is a non-meat eater, living almost entirely on bread (of whole-wheat flour), milk, butter, cheese, and fruit. He claims that the most important of the nutritions elements are phosphorus and lime. That these are not sufficiently supplied by meat is proved by the well-known fact that dogs fed on meat without bones (that supply phosphate of lime) will lack both intelligence and activity; that the physical deterioration of the English and Americans is due to the increased consumption of the flesh of animals, which, besides being normally deficient in phosphate of lime, becomes still more innutritious through long transportation alive in railway cars and steamships.

CANE-SUGAR DISEASES

For a long time it has been noticed that diabetes is increasing very rapidly. According to the rate of increase during the ten years between 1890 and 1900, diabetes will be, by 1950, seventeen times as frequent as it is now; that is, if it continues to increase at the same rate.

Without doubt, one cause of diabetes is the excessive use of cane-sugar. Observing physicians also attribute to the use of canesugar the increasing prevalence of rheumatism, gout, and other uric-acid disorders. The blood is overwhelmed with saccharin substances, so that its power to remove and destroy the wastes of the body is diminished.

Probably few are aware of the enormous amount of sugar annually consumed in this country. It amounts to nearly four ounces per day, per capita, of the entire

population, and is rapidly increasing, according to the following figures recently furnished us by the assistant statistician of the United States Department of Agriculture:—

THE POPULATION, AND PER CAPITA CONSUMPTION OF SUGAR, IN THE UNITED STATES, FOR THE PAST FIVE (5) YEARS, AS REPORTED BY THE BUREAU OF STATISTICS, DEPARTMENT OF COMMERCE AND LABOR:—

		Per capita	Total sugar consumed
Years	Population June 1	of sugar (Pounds)	(Tens)
1900	76,303,307		2,487,487.8082
1901	77,647,000	68.7	2,667,174.45
1902	79,003,000	72.8	2,875,709.2
1903	80,372,000	70.9	2,849,187.4
1904	81,752,000	75.3	3,077,962.8

From the foregoing table it appears that the present use of cane-sugar in this country amounts to seventy-five pounds per capita annually, and that the consumption of sugar is increasing at the rate of a little more than two pounds per capita annually.

Experiments made on the German army have shown that the free use of sugar produces gastric catarrh and indigestion. Gautier's experiments with dogs have shown very clearly that cane-sugar is capable of producing gastric irritation and a great deal of disturbance when used in other than the very smallest quantities. A ten-per-cent solution was found sufficient to produce serious disturbance.

The fact that sugar has a high nutritive value has led many people, even physicians, to prescribe it freely even for invalids and children; but the nutritive value of an article is not a true measure of its value as a food. Its digestibility and its effects upon the digestive organs and other tissues of the body must also be taken into account. Cane-sugar is probably responsible for more sickness and more deaths than any other one article of food. Its use should be as limited as possible. Sweet fruits, fruitsugar, or maltose should be substituted. Honey used in moderate quantities is decidedly preferable to cane-sugar, though to many persons the flavor is not so agreeable.

A Long Fast.

Mr. George Austin Shaw, a business man of New York, claims to have fasted forty-five days, working from twelve to eighteen hours a day during the entire time. Mr. Shaw was overfed, and took this method of reducing his weight. He lost thirty-six and one-half pounds during the fast. He found himself strong and in good health at the end.

It is clearly evident that we are less immediately dependent upon our daily meals than has usually been supposed; and there seem to be cases in which fasting for a short period is decidedly beneficial; but it undoubtedly requires a strong constitution to abstain from food for a month and a half, as did Mr. Shaw, and most people will be wise enough not to try the experiment. Fasting for a day, or even for two or three days, will sometimes be found very helpful in overcoming biliousness, reducing fat, getting rid of a severe cold, or some other acute febrile attack. It is very doubtful

whether any material advantage is really gained by a prolonged fasting; at any rate, it would seem that all the advantages gained by Mr. Shaw by his long fast might have been secured equally well by taking daily a small amount of food, fruit perhaps, though the time required for reducing his flesh to the desired point might have been somewhat prolonged.

There is a danger involved in the complete withdrawal of food, in that the foundation structures, the framework of the body, may be broken down for the consumption of fuel to maintain heat.

Public Baths.

A dozen years ago the editor of this journal, by the aid of friends and colleagues, opened the first place in Chicago where a man without a copper in his pocket could get a bath. It was pitiful to see the vast multitude of unwashed wandering about the streets of Chicago, lining the lake front, grimy, dirty, filthy, because unable to

obtain anywhere the opportunity to take a bath, notwithstanding the great abundance of water in constant view, since the law prohibits bathing in the lake.

Hundreds of people enjoyed the homely facilities arranged at Customhouse Place; but the best result of this effort is the fact that the city authorities became interested, and soon after established the Mayor Harrison Public Baths, which were so great a success that since that time numerous other public baths have been established, and all have proved extremely successful.

Edison's Frugality.

Mr. Thomas A. Edison, whose marvelous inventions have won for him the title of "The Wizard," seems almost to emulate Cornaro in the frugality of his dietetic and other habits. He is a very hard worker, yet he eats rather sparingly. He recently stated to a reporter that for three months he had lived on twelve ounces of solid food a day. This is a much smaller allowance than that taken by the average man.

Mr. Edison says we eat too much, sleep too much, and do not work enough. He takes no stock in the doctrine that hard work is unhealthful, or that men break down from hard work. He insists that people who have to drop their business and run away to Europe for a rest now and then are not working too hard, but are eating too much, and not taking enough exercise. Mr. Edison's views on these subjects seem to be very practical and sensible; and we commend them to the thoughtful consideration of our readers.

Variety the Spice of Life.

While the old adage, "Variety is the spice of life," is true necessarily of things in general, it seems to be physically true, as well. Dr. Mendel, the eminent Professor of Chemistry in the Sheffield Scientific School of Yale, is authority for the statement that it is important to vary the diet to a considerable degree, taking small amounts of a different number of articles in order to provide the body with the

necessary selection of substances which are réquired for the support of the various subtle functions and activities of the complicated human machine. The fact that the Creator has provided for human sustenance such a great variety of wholesome foodstuffs is in itself evidence that man should not "live by bread alone," but should make use of as large a variety as can be conveniently secured of the almost infinite number of wholesome foodstuffs with which Mother Earth so bountifully supplies us.

Catarrh.

Catarrh is an infectious disorder caused by germs. The first sign of having taken cold is a watery discharge from the nose. This is not catarrh; it is coryza. This watery discharge is a very interesting phenomenon. It is Nature pouring out serum for the purpose of killing the germs in the nose. When one takes cold, the mucous membrane becomes congested; these germs are warmed up, and they begin to grow and multiply. So Nature pours out a flood of serum, having germicidal properties, to destroy them. This is Nature's method of disinfecting the nose, and defending one from catarrh.

But if the process goes on, if the balance of the circulation is not restored, and the waste matters removed from the blood so that the body can return to its normal state, the serum ceases to flow, but the germs which are in the nose grow and develop.

Then there is a thick yellowish or whitish discharge, which is mucus mixed with germs and blood corpuscles. These corpuscles - leucocytes - are sent out in great numbers upon the mucous membrane along with the serum, to kill the germs. The dead leucocytes make up a large amount of the discharge from the nose which is sometimes described as pus, but the ordinary discharge is similar to mucus. This mucus is full of infectious germs. If it is received upon a handkerchief, it dries, and is soon pulverized and floating about in the air. Or some of it may be cleared out of the throat, and fall upon the ground, where it is ground into dust and flies up in the air, and somebody else catches it in his nose, and it sets up the same sort of thing there.

A cold is an infectious disease just as much as smallpox. One does not catch cold from being in contact with a person having a cold, but by inhaling the germs that some person has discharged from his nose or expectorated from his mouth. These germs gather and develop in the nose, and produce an acute cold in the first place, later a chronic cold or catarrh.

There is a little island in the North Atlantic that is visited by ships only once a year. The people living on this island had never suffered from colds, and knew nothing about them, until some time during the last century. One day a ship came there with a cargo, and within three days almost the entire population was sick with colds, the germs of which were brought on the ship. This is proof of the theory that a cold is simply an infection.

The Abdominal Brain.

Many persons suffer from headache, dizziness, confusion of thought, or similar unpleasant symptoms, after meals. These are evidences of indigestion. We have two brains—the cranial and the abdominal brain. The abdominal brain, which is called the solar plexus, has charge of the work of digestion, and the cranial brain has charge of the intellectual operations and a general supervision over the body as a whole. When one whose stomach is in an irritable condition takes a meal, his solar plexus may become overexcited, and through its connection with the brain, the brain also become excited.

The abdominal brain has charge of the heart; it controls the circulation of the blood. When the abdominal brain is over-excited from indigestion or any cause, it may excite the heart. You will always find the pulse a little quicker after dinner than it was before. Palpitation of the heart

sometimes results from overexcitation of the abdominal brain by indigestion.

It is a very common thing to find persons whose brains are influenced by their eating. Many business men have observed that after a heavy dinner they can not think clearly and connectedly. This is the most common cause of the after-dinner cigar, which muddles the brain a little more, so they do not know that they are muddled. When the cigar fails to produce apparently the desired effect, they take a glass of whisky, which confuses the brain still more.

This condition of mental obscurity and sluggishness is usually the result of errors in diet, and the only way to obtain permanent relief is to reform the dietetic habits. Whisky and cigars give only the sensation of relief, while in reality they increase the trouble. Many so-called nerve tonics have the same effect.

Governor La Follette a Vegetarian.

Governor La Follette surprised the people at a big picnic in Wisconsin not long ago by refusing their ham sandwiches, roast beef, and other flesh foods, and making a meal on nuts and fruit. The whole country has already discovered that Gov. La Follette is a man who has opinions of his own. He is one of the ablest platform speakers of the day, and a man of remarkable personality. As a factor in the politics of his State he has shown his superiority to the political machine, and his ability to lead the people by the forceful presentation of practical ideas.

The adoption of the simple-life plan of eating by such a man should arrest the attention of thinking people. No one can investigate the natural-food idea without being convinced of its soundness.

In this connection it may be proper to mention that ex-Governor Van Sant, of Minnesota, is also an advocate of simplelife principles, and himself adheres strictly to a very simple dietary, from which meat is wholly or almost entirely excluded.

S... Question Box...

10,264. To Purify Water. — Mrs. M. M. A., Wisconsin, asks us to comment on the fol-

lowing : -

From numerous and extensive experiments made by Professor Patemo and reported in La Tribune (Rome), it appears, says the American Inventor, that by adding to impure water, even that containing pathogenic microbes, an extremely small quantity of chlorid of silver, there is accomplished the complete disinfection of water. Two milligrams, or at most two and one-half milligrams, are sufficient absolutely to sterilize a liter of water and to eliminate every danger of infection. The process is so simple that one can not expect any improvement upon it in the future; it may be used by any one and in any condition of life, the sterilization being complete after a few minutes—ten at most, and no apparatus being necessary beyond a small vial with a solution of chlorid of silver. The water keeps its flavor and all its properties without modification, only undergoing a slight whitening, which disappears after a few hours of repose.—Literary Digest.

Ans.—The amount of chlorid of silver employed in disinfection by the means recommended certainly is not very great,—only about one twenty-fifth of a grain to a quart of water,—but whether or not it would prove effective in the destruction of all disease-producing microbes could be determined only by trial. We will have some experiments made in the Laboratory of Hygiene of the Battle Creek Sanitarium, and will report in a subsequent number.

10,265. Roasted Peanuts.—F. P. G., Louisiana: "1, Are roasted peanuts, parched brown, wholesome? 2. How much should be eaten at one meal? 3. Is it best to blanch the nuts or roast them when they are to remain in the oven four hours after grinding?"

Ans.- 1. No.

- 2. None at all.
- The nuts should be blanched, but not roasted, if intended to be used as food.

10,266. Stomach Trouble — Ovaritis — Cold — Asparagus — Sleep — Weak Eyes. — Mrs. A. B. K., California: "I. Please advise

diet and home treatment in case of stomach and bowel trouble when patient is in bed. Baked potatoes disagree. 2. What can be done for ovaritis? 3. For cold in the head? 4. Is asparagus healthful? 5. How many hours should children of four and eleven sleep? 6. When should they retire for the night? 7. Are boracic acid, Pond's Extract, distilled water in the right proportion, and a little camphor, good for weak eyes?"

Ans.—1. It is impossible to give a prescription for stomach and bowel trouble. It is necessary to know the nature of the "trouble." The symptoms should be carefully given.

- 2. A cure may be effected in nearly every case.
- 3. Nasal catarrh, either acute or chronic, is curable by employment of the proper measures. A pocket vaporizer is a very excellent remedy to use as a local disinfectant. Various cleansing and antiseptic agents may be applied with almost any kind of atomizer or vaporizer with advantage. In addition, a cold bath should be taken every day, and as much time as possible should be spent in the open air. Persons who live out of doors, especially those who sleep out of doors at night, rarely contract a cold.

4. Yes.

- 5. Nine or ten hours.
- 6. Not later than eight o'clock.
- 7. Boracic acid, with perhaps the addition of a little camphor, is often beneficial in cases of chronic inflammation or irritation of the eyelids, but Pond's Extract is not to be recommended, on account of the considerable amount of alcohol which it contains.

10,267. Liver Complaint.—R. X., Pennsylvania, wishes to know what to do for liver complaint. Is confined in store and office from 7 A. M. till 9 P. M.

Ans.—Apply fomentations over the liver two or three times daily for fifteen minutes each. During the rest of the twenty-four hours apply the heating compress, consisting of a towel wrung out of cold water, applied over the surface and covered with dry flannel. 10,268. Hydrotherapy.—F. H., Missouri;
"1. How do general hot applications increase the acid phosphates of the blood? 2. Do they change Na₂ HPO₄ to Na H₂ PO₄? 3. If general hot applications increase the acidity of the blood and thus lessen its solvent action on uric acid, how can they be beneficial in rheumatism? 4. How do general cold applications diminish the acid phosphate of the blood, increasing its alkalinity? 5. Should not cold applications for this reason be good for rheumatism? 6. Why does a hot douche over the stomach diminish the secretion of HCl, whereas a fomentation over the stomach increases the secretion of HCl ('Rational Hydrotherapy,' p. 158)? 7. On page 777 you say that the spinal compress causes dilatation of the vessels of the lower extremities. A New York doctor states that applications of ice to the vasomotor centers of the dorso-lumbar spine paralyze the vasoconstrictor nerves, and cause dilatation of the blood vessels to which they are distributed; viz., those of the lower extremities. All through your book you teach that cold applications produce vasoconstrictor phenomena. Please explain this contradiction."

Ans.— I. Hot applications do not produce any chemical changes or decompositions in the blood. They simply increase the proteid metabolism; that is, they encourage the oxidization of nitrogenous material, and so increase the amount of acid waste substances in the blood.

2. No.

3. They are beneficial in rheumatism because they encourage the burning of proteid wastes, the imperfect oxidization of which is the cause of rheumatism. They also encourage the conversion of uric acid in the urea.

4. They increase the alkalinity of the blood by increasing the intake of oxygen and encouraging the elimination of acid wastes.

5. Cold applications are in the highest degree beneficial in rheumatism. Their application is essential for a complete and thoroughgoing cure. They should always be used in connection with hot applications.

6. A short hot douche is followed by a strong atonic reaction. It produces an inhibitory effect through the thermic nerves. A fomentation over the stomach or a prolonged application of heat increases the blood supply of the stomach, and hence stimulates the activity of its glands.

7. A very long application of cold produces effects exactly opposite to those produced by a short application. For example, a short application over the heart, thirty to forty minutes, increases the cardiac tone and vigor, but when the application is prolonged to such an

extent that the thermic nerves of the skin are paralyzed, an opposite effect is produced.

10,269. Sleeplessness—Catarrh.—F. R., Missouri: "After a year's irregular sleep, now, at the end of three months' rest, I am unable to sleep longer than four to five hours, after which sleep is broken until morning. I am thirty-five years old and in good health, with the exception of increased and frequent urination and hypertrophic nasal catarrh. I. What can be done to get back to eight hours' sleep? 2. Please give formula for ointment to be applied to nostrils for treatment of catarrh in connection with the use of the vaporizer."

Ans.—1. You must live a natural life; eat natural food; regulate the habits of life so that the digestion may be normal; see that the colon is thoroughly emptied daily; if necessary by an enema at 80°. Just before retiring at night, take a neutral bath for twenty minutes to one or even two hours. The temperature of the bath should be 92° to 96°. Sleep out of doors.

An excellent formula applicable to a large proportion of the cases of chronic nasal catarrh is the following:—

Albolin I oz.

10,270. Relaxed Ligaments of Jaws—Germs of Tuberculosis.— Mrs. A. W., Wisconsin: "I. What treatment would you advise for relaxed ligaments of the jaws? The ligaments in the right side of the face are so relaxed as to cause dislocation when chewing or on opening the mouth. 2. What treatment would you advise for the germs of tuberculosis in the throat?"

Ans.— I. Massage is the only remedy of any considerable value in such a case.

2. No local treatment is of any great advantage. The daily cold bath, the outdoor life, and a proper dietary are the essential measures. The inhalation of hot steam five or ten minutes every hour is a good measure. Local applications may be made by specialists. Benefit has been derived from the application of lactic acid in such cases.

10,271. Olive-Oil. — G. P., Ohio: "Will olive-oil, taken in doses of two tablespoonfuls at night, if continued any length of time, derange a weak stomach?"

Ans.—A person who is suffering from hypopepsia would probably be injured by such a practise, as the effect of fats is to lessen the secretion of hydrochloric acid.

10,272. Lime — Feeding Sugar to Infants. — Mrs. M. L., Tennessee, asks: "I. Is lime good for the teeth and for the system generally? 2. Would it be well for a person who drinks cistern water to add a teaspoonful of lime-water to a glass of the former every other day? 3. Should feeding sugar and water to an infant every hour or two during the first one or two days of its life be condemned? 4. Should it have sweetened water when it is older?"

Ans.- I. No.

2. No.

3. Yes.

4. No. Great harm results from this practise. Cane-sugar is highly injurious to infants; in fact, it is objectionable at all ages.

10,273. Sunburn — Diabetes — Catarrh — Corns. — H. M. S., Pennsylvania: "I. What is a good remedy for sunburned arms and neck? 2. Is there anything that will prevent sunburn? 3. Give some precautions against contracting diabetes that a person can use in every-day living, 4. Do you know of a prac-

tical book on catarrh? 5. How should corns be treated?"

Ans.— 1. Apply flour or corn-starch freely.
2. Yes; protection of the skin from the actinic rays of the sun. This may be accomplished in a variety of ways. Covering the skin with some opaque or dark-colored protective is an effective method; or, the skin may be smeared with some dark pigment. Black, brown, or red are the most protective colors.

3. Avoid meat eating, the use of cane-sugar, and overeating. Take plenty of exercise in the open air. The observance of these few simple suggestions will effectually prevent diabetes.

4. No.

5. They should be removed. For permanent results, the portion of the skin from which the corn grows must also be removed.

10,274. Treatment of Inebriety.—T. W. H., British Columbia: "I. What is your method of cure for the drink habit? 2. How long does it take the system to get rid of the thirst for liquor after three or four weeks' drinking? 3. Is there any sense in the glass-to-sober-up-on theory?"

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- Ans,—1. The patient is isolated, and put upon a non-flesh diet. At first sedative, afterward tonic, treatment is administered.
- The appetite for liquor often disappears entirely within a week on this regimen.
 - 3. No.
- A subscriber, Illinois: "r. My hair is very straight and dry. Brushing with a metal brush benefits, but does not cure. Please advise. 2. Is there any way for a light-boned boy (aged eighteen) to develop the bones?"
- Ans.—1. The general health must be improved. Probably the skin generally is too dry. There should be a course of tonic treatment. General sweating baths, cold baths, massage, abundant exercise in the open air, with careful regulation of the diet, excluding meats, condiments, tea, coffee, and all unwholesome things. Adopt the Battle Creek Sanitarium dietary.
- 2. Yes, by proper diet and exercise. The bones are nourished by branches of some of the blood-vessels which supply the muscles overlying them; consequently, muscular activity by which blood is brought to the part, improves the nutrition of the underlying bones. The only way to make the bones grow is by using the muscles which are connected with them.
- 10,276. Diet Cottage Cheese Rocking-Chair. C. M. H., Virginia: "1. Were the twelve ounces on which Cornaro lived dry food? 2. What kind of food did he eat? 3. Ralston books say that dried raisins are without nourishment, and indigestible. Do you consider them so? 4. While you commend soups and purees, you condemn the drinking of water with meals. Please explain. 5. Is cottage cheese made from sweet milk with reinet tablets as wholesome as that made from sour milk? 6. Do you think the motion of the rocking-chair good exercise for dyspeptics?"

Ans.- I. Yes.

- Almost wholly vegetable food; bread chiefly.
- This is a mistake. Dried raisins contain 93.5 calories, or food units, to the ounce.
- 4. One should not drink soups or purées, but should eat them. There is no harm in taking a moderate amount of water at meals, but it should be taken in the same way one takes soups or purées in small sips. A moderate amount four to eight ounces often encourages the secretion of gastric juice. It is only in certain cases that fluids at meals must be wholly interdicted.
 - 5. Yes.

- 6. Possibly yes, for certain cases of indigestion; but for most dyspeptics more vigorous exercise is needful. The position of the body which the ordinary rocking-chair compels is objectionable. In the use of such chairs, care should be taken to support the back by a small cushion suited to the purpose. The support should be placed at the small of the back, so as to keep the chest up.
- 10,277. Rheumatism Pickles Corn-Meal. L. B. B., Maine: "I. Can rheumatism of four or five years' standing, when the joints of the hand and feet are enlarged, swollen at times, and stiff, be cured? 2. Are green cucumbers, horseradish, pickles, cabbage, etc., to be avoided in such a case? 3. Prescribe treatment. 4. How should cornmeal be cooked?"
- Ans.—1. In most cases the disease may be arrested and the patient's general health restored; but the deformities produced by chronic rheumatism are not always curable.
 - 2. Most certainly.
- 3. Such cases require a thoroughgoing application of the physiologic method. First the diet must be right. All meats must be excluded; also tea, coffee, and all condiments, and the diet must be exactly adapted to the patient's needs. This requires a careful study of the urine, and due regard to the patient's weight, his appetite, and various other points which can be determined only by careful examination. Warm baths may be used in moderation, but cold baths are especially required. Hot applications should be made to the affected joints for several hours daily, and the hot application should be followed by the heating compress, consisting of a towel wrung out of cold water, covered with mackintosh, then wrapped warm with flannels.
- 4. The best way is to make into cakes and bake until thoroughly done.
- 10,278. Constipation.—S. C. M., Texas: "The August (1904) Good Health states that the most common cause of constipation is dilatation of the colon. I. What is the most common cause of dilatation of the colon? 2. When dilatation of the colon is once established, is it apt to become chronic and irremediable? 3. Please prescribe. 4. Is roller massage of the bowels an effective remedy?"
- Ans.—1. Sedentary habits, causing weakening or relaxation of the abdominal muscles; a relaxed, forward stooping position in sitting; overeating; neglect to attend to the call of

nature for emptying the bowels; a constipating diet, especially the use of fine-flour bread and concentrated foods.

2. Yes.

3. A cure in such cases requires the most careful management. The causes which have been active in the individual case must be discovered and eliminated. The patient must take vigorous exercise in the open air daily. Manual Swedish movements are very important for developing the abdominal muscles. The application of the sinusoidal current is also of great use in these cases. The colon must be thoroughly emptied of its contents every day by the careful application of the cold enema, adding a little soap if necessary. The enema should be graduated, and the amount gradually diminished as the colon diminishes in size, so that the enema itself shall not become a source of dilatation. The general health of the patient must be built up by tonic treatment.

4. It may be beneficial to some degree, but is not sufficient.

10,279. The Cold Morning Bath.— L. C., Washington: "I. Is the cold morning bath, taken on rising, weakening to the internal organs? 2. Will it cause constipation? 3. Will it make one nervous? 4. Will its continued

CATCHING Cold is an indication of an impaired activity of the skin, and occurs most frequently with people of weakened capillary circulation, the result of wearing woolen undergarments.

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use cause loss of flesh? 5. Can it be taken with safety in a cold room in winter? 6. What is the so-called quick plunge? 7. How cold should it be taken?"

Ans.— t. No, but greatly beneficial. Care must be taken, however, to secure thorough and prompt reaction. To this end the bath should be short, and should be taken in a warm room.

2. No.

- Nervousness is a common result from imperfect reaction, as indicated by cold hands and feet, headaches, etc.
- 4. No; not unless its application is overdone; that is, if the baths are continued too long, or if the reaction is imperfect, the result may be a loss of flesh.
- 5. No; the room should be warm. It is possible to take a cold bath in a cold room, but only with very great difficulty. In such a case the cold application should be made only to a small portion of the surface of the body at a time; as, an arm, a foot, the chest, a portion of the leg, etc., the rest of the body being kept carefully covered until the small area exposed has been bathed and thoroughly rubbed until a good reaction has occurred.
 - 6. A dip in a full bath containing cold water.
- 7. By persons who are accustomed to taking cold baths, such a bath may be taken at the ordinary temperature of pipe water at all seasons of the year; but for feeble persons, the water should be warmed a little in cold weather. A temperature of 75° to 70° will produce excellent effects.
- 10,280. Coated Tongue.—R. M., Washington: "Why should one who lives in strict harmony with Good Health principles, and takes plenty of exercise, have coated tongue and foul breath?"

Ans.—Because his vital resistance is low. Possibly the diet may not be just right. The use of milk is very liable to produce a coated tongue and foul breath. This symptom is also sometimes due to sleeping with the mouth open, as a result of obstruction of the nose. A general lowering of the vital resistance will produce coated tongue. Perseverance in right living, the outdoor life, and a simple diet will in time correct the difficulty.

10,281. Constipation.—A. M. L. K., Minnesota: "I. What can be done for chronic constipation? 2. Is there any other form of fomentation except hot water and flannel? 3. What will relieve distress and flatulence after meals? Foods containing albumen disagree."

Ans .- 1. It can be cured.

- Moisture and heat in combination may be applied in a variety of ways. A hot bag, a hot brick, or any other heated solid, may be wrapped in a moist cloth, or the photophore may be used in connection with a moist cloth.
- Hot-water drinking and the application of heat over the stomach are usually effective remedies. Foods which are known to disagree should be discarded.
- 10,282. Rhubarb Cottonseed Oll Appendicitis—Milk and Sugar.—W. F., Oregon: "I. What kind of acid does rhubarb contain? 2. Is it a germ destroyer? 3. Is cottonseed oil a good substitute for olive oil in constipation? 4. Is cottonseed oil a wholesome food? 5. Is appendicitis ever caused from riding a bicycle? 6. What is the chemical name of the poison produced by the use of a milk and cane-sugar combination?"

Ans .- I. Oxalic acid.

- Yes, but it is unwholesome to human life as well as to germ life.
- We have had no experience in the use of cottonseed oil.
- 4. The cottonseed is not a natural food for man, and we have never yet been thoroughly satisfied that cottonseed oil is a wholesome substitute for the fats of nuts and other natural human foods.
- 5. It is possible that a person might receive some accidental injury in connection with bicycle riding which might give rise to appendicitis; but the ordinary use of the bicycle ought not to produce any such effect.
- We are not aware that there is any specific poison produced in this way.
- 10,283. Catarrh.—B. G. F., Illinois: "What is the best treatment for catarrh?"

Ans.— Make the skin healthy by daily cold bathing and vigorous exercise. Make the blood pure by a clean, wholesome, natural dietary. Cleanse the nose by some saline or alkaline application daily, and follow the cleansing by the use of simple antiseptics applied with an atomizer. Live out of doors.

10,284. Digestion of Sugar.—L. A., Oregon: "Is beet-root sugar digested by the same processes as cane-sugar?"

Ans.—Yes. The sugar made from beet roots is identical with that obtained from the sugar-cane. Both are cane-sugar.

LITERARY NOTES

Among the special art features of the November Scribner's are a number of illustrations by Walter Jack Duncan, reproduced in color, illustrating an article by H. G. Dwight, called "An Impressionist's New York."

While the November number of the Woman's Home Companion is rich in material for holiday celebrations, the magazine offers an attractive array of short stories and special articles of live interest.

"Masters of Old Age." The Value of Longevity Illustrated by Practical Examples. By Colonel Nicholas Smith. Published by The Young Churchman Co., Milwaukee. 1905.

This book is well calculated to revolutionize the ideas of those who believe in the "dead line" at fifty. It is full of examples of those who have made the declining period of life the most brilliant and full of achievement. Indeed, after reading it, one is inclined to agree with Aristotle that the mind does not reach its prime until about the age of forty-nine years; or with the employer who remarked to

Emerson that a man was not worth anything until he was sixty.

Those past the meridian of life can scarcely fail to gather from the pages of this book courage and inspiration. The spirit of the book is in harmony with its motto,—

"It matters not how strait the gate,

How charged with punishment the scroll, I am the master of my fate:

I am the captain of my soul."

"The Foundation of All Reform."—A Guide to Health, Wealth, and Freedom. By Otto Carqué. Published by the Cosmos Publishing Company, Chicago, Ill.; and by L. N. Fowler & Co., 7 Imperial Arcade, Ludgate Circus, London, England.

We have in this work a sound and sensible discussion of the fundamental causes of some of the evils afflicting mankind. The root of true and lasting reform, the solution of the social and economic problems, is found by this author in the diet reform. He sees the emancipation of the civilized races in the return to nature, the desertion of city workshops, and the cultivation of the soil for the original fruitarian dietary of the race.



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

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BATTLE CREEK,

MICHIGAN

PRIZE PHOTOGRAPHIC COMPETITION.

The photograph showing the best arrangement of a piazza for health, comfort, and convenience for outdoor living, sent to the Good Health Publishing Company before May 1, 1906, will receive a prize of five dollars. A second prize of three dollars will be given.

A five-dollar prize and an additional prize of three dollars are also offered for photographs showing best arrangements for out-of-door living in the back yard, or about the home grounds, or on the roof of the private city house.

OUTDOOR OCCUPATIONS FOR CHIL-DREN.

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HEALTH RHYME COMPETITION.

The large number of rhymes entered in this contest have been carefully examined by the committee appointed for this purpose, and as they find that the rhymes do not embody the idea intended by the person making the offer, it has been decided to reopen the contest, extending the time to March 1, 1906.

The object in offering these prizes was to obtain rhymes so simple, yet so attractive, that they would lodge as naturally in the child mind as do the "Mother Goose" melodies.

The length of the rhymes and the length and number of the lines in each stanza will be left to the judgment of the contestants, but we would suggest that the rhymes be short.

First prize, \$5.00; second prize, \$3.00; third prize, \$2.00.

"The Moody Bible Institute of Chicago," an outline report of the institution founded by D. L. Moody in 1886, for the study of the Scriptures and training in practical Christian work. Those desiring a copy of this report, or the full catalogue, or any information about the work, should apply to the Superintendent (Men's Department), 80 Institute Place, Chicago, or (Woman's Department), 230 La Salle Ave., Chicago, Ill.

At the recent graduation of the Nebraska Sanitarium Nurses' Training-Class for 1905, ten young ladies received their diplomas from the hands of Dr. W. A. George, medical superintendent of the institution. The address of the evening was given by Elder A. T. Robinson, who called attention to the fact that fifty-one sanitariums, as well as a score of other affiliating medical missionary institutions, have grown out of the work started forty years ago in Battle Creek, Mich. These various

institutions are located in twenty-five States and the District of Columbia in this country, and in the following foreign countries: Australia, Bay Islands, Canada, China, Denmark, England, Egypt, Germany, India, Ireland, Japan, Mexico, New Zealand, Samoa, South Africa, Switzerland, and Turkey.

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The highest authorities agree that the best artificial food for a healthy infant is pure milk from healthy cows, properly diluted, sweetened, and sterilized. Milk of this description differs but slightly in its chemical composition from mother's milk, and comes closer to an ideal food in every respect than any compound ever made. One of its essential features is that it contains fat which builds fat of a different and better quality than that produced by sugar or starch. Just why this should be so may not be explained, but, nevertheless, it seems to be the consensus of opinion of all pediatrists that this statement is true.

There is no absolutely fixed standard for the composition of either human or cow's milk, nor does it seem essential that the milk to be fed to infants be of an absolute standard, so long as its chemical composition does not deviate materially from the usually accepted standard of human milk; for the slight difference in carbohydrates may readily be corrected by the addition of sugar, and experience has proved that this Walter Baker & Co.'s
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difference is readily overcome by the child in most instances, even if not corrected.

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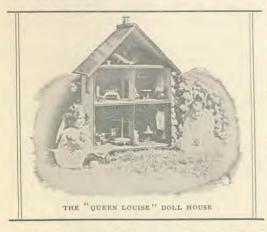








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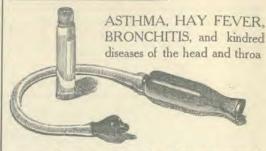
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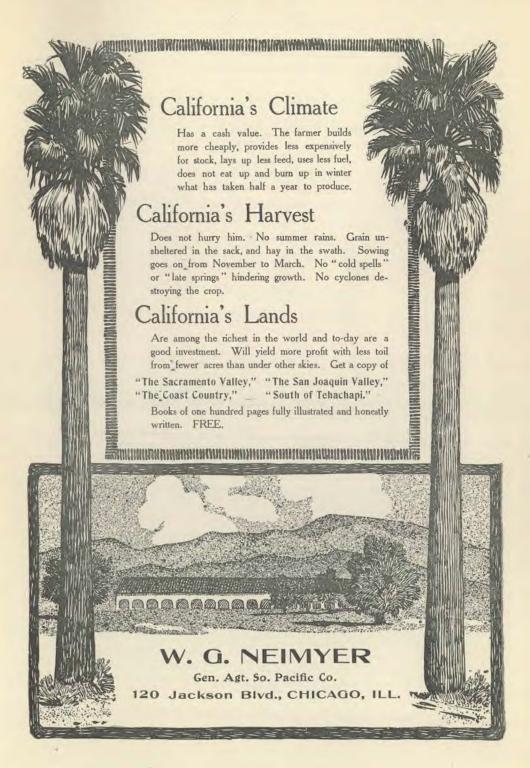
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