Herald of Health

Vol. 4 Lucknow, U. P. March, 1913 No. 3

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MAKING INVESTIGATION

HERALD OF HEALTH

The Indian Health Magazine.

V. L. Mann, M. D., Editor - - - - - S. A. Wellman, Asso. Editor.

Vol. 4 Lucknow, U. P., March, 1913. No. 3

A Plea for Reform

Working the Incurables.

Nothing is more pitiable or cruel than to witness some one who is suffering with tuberculosis or cancer, resting their hopes of recuperation upon some widely-advertised Consumption or Cancer Cure. We are glad to see the compaign engaged in by the medical profession of various countries for the enlightenment of the laity with regard to the cause, prevention, and cure of the "White Plague," which is claiming its thousands every year. It has been demonstrated that this disease in its very early stages, when treated along hygienic lines and closely watched by competent physicians warrants quite a percentage of cures. But it is on the other hand a disease that very easily and insiduously passes from the curable to the incurable stage. This is where the Consumption Cure imposter gets in his work of destruction. He holds out to those in the incipient stage of this desease a cure, a worthless concoction that only hastens the victim to his untimely end. And still these quacks with their bona fide statements and their guarantees would make one think that he was snatched from the brink of the grave. This in our opinion is robbery and murder in cold blood. We will be glad when the people are educated to that point where governments will have to recognise it as such, and mete out punishment accordingly.

Some of the statements made for these nostrums by their promoters are blatant to the extreme. The following are examples of some of the guarantee bonds sent out with other advertising matter.

No. 1. Guarantee Bond.

In consideration of you having paid me £2-12-6, for a three months course of my treatment for consumption, I hereby guarantee that your health has, at the end of the three months, considerably improved to the satisfaction of yourself and also of your Doctor under a penalty of refunding the whole amount paid."

No. 2. Guarantee Bond.

"I hereby guarantee that it will be impossible to find any trace of the Tubercle Bacillus in your system, and that you will be completely cured of Tuberculosis (consumption) to the satisfaction of your own Doctor and the Government laboratory on or before.....,19—.

The only condition being that the sum of £.————, is paid to me when this guarantee is fulfilled." *Secret Remedies.*

SIGNED, C. H. STEVENS.

These are sent out by the Sterns Consumption Cure. They sound very nice, and when sent to a patient suffering with consumption will hold his attention long enough to allow the disease to reach the incurable stage.

"Doctor Slocum puts out a 'special cure offer' that will snatch you from the

jaws of death, on the blanket plan for £ 1, and guarantees the cure (or more medicine) for £ 2. His scheme is so noble and broad minded that I can not refrain from detailing it, for £ 1, you get.

One Large bottle of Psychine.

One Large bottle of Ozo mulsion.

One Large bottle of Coltsfoot Expectorant.

One Large tube of Ozojell.

Three boxes of Lazy Liver Pills.

Three Hot X-Ray Porous Plasters.

'Which' says the certificate, will in the majority of cases effect a permanent cure of the malady from which the invalid is suffering. Whatever ails you, that's what Dr. T. A. Slocum cures. For £ 2, you get almost twice the amount, plus the guarantee, surely there is little left on earth, unless Dr. Slocum should issue a £ 3, offer to include funeral expenses and a tomb-stone."—*The Nostrum Evil.*

We are glad that the sentiment in England, on the continent, and in America is growing more conservative in regard to the use of nostrums. This means that the faker pushes out into the colonies where the people are not educated to see the harm of such things, and where public opinion is such that the charlatan goes on with his henious practices without opposition. We have many illustrations of this in India. The Cancer Faker also has a good field for his deceptive work. The knife is about the only thing that we can depend upon, and then it must be attacked in its most insipient stage. Once having passed this stage it grows in such a way, and is carried so rapidly by the lymphatic and blood channels, that it soon gets beyond the confines of even the Surgeon's knife. Still to listen to the multifarious lies of the Cancer Fraud promoter, would lull one into a condition of confidence and trust until he had passed the brink of destruction, where he finds himself beyond all power of recovery. But says one where are the consciences of these men? They have been seered over with the love of money until they are as blunt as hoe on the scrap heap.

Epilepsy is another disease that has furnished the patient medicine vendor a good field for preying upon the incurables. No specific treatment warranting uniform results has ever been produced for this condition. Nevertheless, the type of individual that we are considering can produce them, apparantly, with impunity. But the only results they have ever yet obtained in reality is to stock their own safes with money. In spite of all this the work of deception is continued, and no doubt will always continue to some extent. But let us rejoice that the good work of education is stamping it out in some places, and let us hope its influence will extend to the unwarned parts.

Where to Begin Conserving

BY L. S. MARDEN

CONSERVATION has become the theme of the wise men (and women) of this time, and little surprise is occasioned, for we see on all sides strenuous efforts to make "ends meet;" and in this consideration the source and supply questions are getting more attention.

Lawmakers are seriously considering measures toward the conservation of natural resources, and scientists are going deeply into the matter of the conservation of the race.

That God planned the best system of conservation for man, physical and spiritual, has lost its connection in the scheme, as man looks at it; hence the question, *How* shall we conserve?

As far as the race of mankind can be

linked with the scheme of conservation, we must go back to the children of men, and cultivate their physical, moral, and spiritual nature, looking to full conservation when they will bear the image of their Creator, as did the first man created, whose Author pronounced the work of His hand "very good." Statistics on every hand show heavy mortality of young life, and one cannot wonder at this, when close observation into causes shows ignorance of natural law and indifference toward remedy, a combination which cannot be beaten in effecting race suicide.

Let our lawmakers be encouraged in their efforts toward conservation of natural resources, but parents should consider, in the fear of God (who tells us that children are His inheritance), *how* these little ones are invited into their homes. God may be consistently asked to add His blessing to proper conditions. But God is not always thought of in this matter by parents, and the necessity of institutions in all our large cities for the artificial fostering of infants is self-evident.

Foundlings left on the doorsteps, deserted wives, and deceived girls tax these institutions heavily; and while the old world rolls around on its axis, with its cup of iniquity fast filling, we may expect these conditions to prevail, if not increase.

St. Margaret's home, of Albany, N. Y., may be cited as a model institution of this character, and its history should inspire other cities and charity organisations to follow its example.

Thirty years ago a motherless little one needed care, and the women of All Saints' Cathedral found a home for it. Other cases called for greater effort, and God, blessing their working faith, gave them the needed "things" which He has promised to those who seek righteousness, and from that day of Christian endeavour to do good to the least of His children, St. Margaret's has grown into the well equipped institution it is.

Bishoy Dhone has used his large influence in the upbuilding and maintenance of the institution, and though started under the auspices of the Protestant Episcopal Church of the diocese of Albany, its board of managers claim representation from all denominations and creeds, making it non-sectarian in administration.

To Dr. Henry L. K. Shaw, the well-known infant specialist, is due the high standard of the institution and the confidence of the medical profession.

The call for nurses from this institution cannot be supplied, which shows that trained infants' nurses are meeting a larger demand every day.

That the course is finished after eight months' training ought to recommend itself as a profession to a large number of young women of good education.

One important feature at St. Margaret's is the "mothering" element in the care of the babies, who cannot have their natural mothers while there. Nurses and superintendents seem to give most naturally of their best in order properly to mother the little ones in their care, and it is the belief of the superintendent that this natural element has assisted in the recovery of some of the most desperately and hopelessly afflicted babies.

That God is glorified in these "good works" should inspire many others to "let their light so shine," to the glory of our Father who is in heaven.

A SHARP THRUST.

THIS is a quotation from a Connecticut women's diary, dated 1700: "We had roast pork for dinner; and Dr. S., who carved, held up a rib on his fork and said: 'Here, ladies, is what Mother Eve was made of.' 'Yes,' said Sister Patty, 'and it's from very much the same kind of critter.'"—*The Christian Register.*

General Articles

Autobiograghy of Mike Robe

FROM my infancy I have lived in a small cave in one of Mary Jones's back teeth. My parents preferred this location on account of its retirement from the outer world, its freedom from sunlight, and the absence of circulating fresh air. Its general adaptability to the growth and development of their children was favourable, and food, because of its abundance, was much easier to obtain in this neighbourhood than elsewhere.

Little Mary's toothbrush, of which we were all mightily afraid, seldom reached this retired locality. For that matter, we had little to fear from brushes in any location, for Mary thought she had no time to waste on her teeth.

It is true we were often threatened with extermination from floods made up of hygienic mouth-washes; but as Mary seldom used these unless compelled to do so by her mother, our chances of annihilation were comparatively few.

I well remember the day that Mary, supplied with a piece of floss silk, began a general cleansing of the crevices of her teeth. My mother always laid the blame of this to her half-sister, my Auntie Sepsis (antisepsis) who had always been an enemy to all the germs of disease. She had never cared much for our branch of the family.

Our watchman, standing in his sentry-box at the top of Mary's middle upper tooth, saw the coming danger, and gave the alarm. A messenger carried the news from place to place, and in a short time we had hurried from the harvesting of the remains of Mary's last meal to the innermost crevices of our caves. To my great disappointment, the last pickings of a chocolate had to be left as forage for the enemy. I hope it choked Auntie Sepsis.

Many of our friends or relatives were killed or injured. My great-uncle was caught in a loop of silk and was hung until dead. My playmate, in jumping from one tooth to another lost his balance, falling upon Mary's tongue. In the confusion he was swallowed before help could reach him. I shall never forget his call for help as he disappeared into the "down and out."

By great good luck this attack was not followed up by other cleanings. The "rented room" sign soon disappeared, and we were again crowded for space.

One morning Mary thought to rid herself of us by using a pin and a toothpick, but while my father lost an eye by the performance, the rest of us were not hurt. Our neighbours, however, in upper left tooth No. 4, gained an addition to their cave, and a new and up-to-date hotel, named the Decay House, was opened next to us.

When I was two months old a stranger from a foreign land came to live with us. This is how it happened: Mary had been playing with Johnny Smith next door, who was just getting well from a sore throat. Mary, without thinking, took a bite from an apple which he had been eating, and along with the bite came a germ from Johnny's sore throat.

The germ barely had time to squeeze itself between two teeth before the apple was swallowed. Hard times then followed for us all. The stranger set up a poison factory in the back of Mary's throat, giving work to other foreigners

like himself. They ate up all our food, and made Mary horribly sick.

Auntie Sepsis was again called in, and such floods as we did have! Our entire population was reduced one-half, for many of our folks could not swim, and life-preservers were scarce.

Mary finally recovered from her sore throat, but her doctor had discovered our houses in the cavities of Mary's teeth. Then she was sent to a dentist, who squirted big streams of water at us, and dug us out with shovels, hoes, and rakes.

Some of our people who always had a stubborn disposition, and who controlled the politics of our district, crawled into the teeth as far as possible, and had to be drilled and blasted out, just as the Panama Canal is being made. This treatment was not enjoyed by Mary, who wriggled, squirmed, and cried until I felt seasick.

Among all the germs, I alone remain to tell you this tale. I escaped by crawling into a tiny crack which the dentist, being near-sighted, did not see.

Mary has learned by this severe lesson the value of keeping her teeth clean, and now uses her toothbrush regularly.

My life is in constant danger. My friends are all dead, and all their houses are filled with metal. What little food I get must be swallowed on the spot, and cannot be stored away: for the tooth we formerly used as a storehouse has been pulled down now, and a new one has been made to take its place.

I have nearly been swallowed several times, and never feel safe without a staff or a parachute. I am merely a shadow of my old self, and have entirely lost my nerve. Besides, the new mouth-wash Mary is using has nearly ruined my stomach.

There are now no good openings in Mary's teeth for a young microbe, and I have to start life in a new country. Yesterday I received word that Mary's fingernails have a growing population. Auntie Sepsis has not not been heard from by them for a long time. I shall try to reach this fertile country if an opportunity offers. I will let you know later how I may succeed.—*Carroll H. Francis, M. D.*

Prevention of Tuberculosis

THE common method of transmission is by transference of the bacilli from the sick person to his neighbour by means of discharges from the lungs and air-passages; even particles too small to be recognized thrown out by the so-called dry cough may contain the germs tuberculosis, says the *Journal A. M. A.* The problem is to care for all matter expelled from the mouth and nose of the tuberculous patient.

To collect the sputum, a metallic cuspidor with an easily opened cover is useful. It should contain water or a five per-cent carbolic solution. Smaller cuspidors or cups are necessary for patients walking about, or the sputum may be received on pieces of cloth or on paper napkins. The receptable containing these things should be impervious to moisture, and capable of thorough cleansing and disinfection. All cloths and papers containing sputum should be burned. If the ordinary handkerchief is used to receive the discharge, it should be placed in water before it is allowed to dry, and should be boiled before being placed with other laundry articles.

It is impossible to emphasize too strongly the necessity of the most minute care to prevent the dissemination of tuberculous discharges. If they fall on the floor or in the street, they turn to dust, and become a menance to the healthy. The feather duster should be forever banished. Ordinary sweeping with a broom should not be undertaken without special precaution to

prevent dust. Moist sawdust or newspapers dampened and torn to pieces answers the purpose. Far better than the broom is the vacuum cleaner.

One of the most important problems is to raise the vitality and resistance powers of those who by heredity are predisposed to tuberculosis; for there is such a wide dissemination of the bacillus that all must come in contact with it. But those who are sufficiently well easily resist an ordinary attack of this kind.

It is necessary to caution against the use of alcoholic drinks. Many believe these beverages to have a tonic effect and to be useful to those predisposed to tuberculosis. The opposite is true, and the fact is that those who are not robust are better off without an alcoholic regime.

To increase the resistance in children, select homes with reference to fresh air. If necessary to live in the city, live in the less populous part of town. Avoid dark-roomed tenements.

All sleeping-rooms should open outdoors. No bedroom should be occupied by more than two persons, and preferably every person should have a separate bed. Windows should be open at night. Infants, as well as adults, require fresh air, but they must be gradually accustomed to cold air. If a strong cold wind is blowing, the window should be partly closed or a screen be placed in front of it.

Delicate children should not be sent t school too young, nor confined for lon hours. They should be encouraged to b out in the air, and to engage in active bu not violent play. They should have longe sleep hours than robust children. Te hours are none too many for children fron five to ten years of age.

Growing children, especially weak chil dren, should be fed regularly. The foo should be varied, nutritious, and digest ible. Milk is important. Eggs are use ful, but should not be given too frequently It is necessary to avoid an excess of pie cake, and candy. Children should b taught to eat fruit and vegetables, an protein foods, and especially foods contain ing fats.

The upper air-passages of childre should be examined to see whether ther is ready access of air to the lungs. Ir regularities of the nose, hypertrophies polypi, or adenoids may interfere with th breathing.

The use of high collars or very tigh collars or corsets may interfere with res piration sufficiently to predispose to tu berculosis. The clothing should be warn enough to serve as a protection, and loos enough to permit free breathing.—*Lif and Health.*

More Hints For Dyspeptics

By A. B. Olsen, M. D., D. P. H.

Nutrition is what the body requires rather than stimulation and irritation. Hence good digestion is best encouraged by the omission of most of the dietetic accessories which one finds on the average table. The use of mustard, peppers, curries, and all similar hot and irritating articles is decidedly detrimental to good digestion and sound health. Most condiments have a decidedly irritating and exciting influence upon the delicate mucous membrane of the stomach, and interfer with and even retard the digestive proces The proper procedure is to develope th natural flavours of the food in cookin rather than to mask them by the use o savouries and condiments.

Cakes and Sweets

Anything like the free use of sweet sweetmeats, candies, sugar, jams, marma lades, preserves, cakes, tarts, pastries an similar articles, must also be seriousl

deprecated. While the sparing indulgence in some of these articles at rare intervals is of little consequence, still their common use must be regarded as one of numerous factors which encourage digestive disturbances. It is, in more ways than one, a waste of money to spend it upon tidbits, When we bear in mind that the starch of vegetables, rice, and all cereals is changed into sugar in the process of digestion we can readily see the wastefulness of taking cane sugar, and, by the way, the two sugars are not the same. Ordinary cane sugar is not capable of assimilation into blood, but must be changed into another form by intestinal digestion.

The Number of Meals

The people of these prosperous islands are given to too frequent eating. Many people take food as often as five times a day, and there are few who do not take it at least four times. There is every reason to believe that three meals are ample, and more frequent feeding is undesirable. Breakfast in the morning, dinner at noontime, and supper in the early evening, provides all that the healthy body requires, and more frequent eating cannot be recommended except in the case of certain invalids.

Eating Between Meals

Eating between meals is decidedly injurious. Too frequently meals and eating between meals gives the stomach no rest. Under such conditions it will always contain food in various stages of digestion and fermentation. Such fermentation processes brought on by micro-organisms of one kind or another are unnatural and give rise to flatulence and the formation of various poisons which, on assimilation into the blood, cause headache as well as other aches and pains, and a general feeling of drowsiness and malaise. This rule about not eating between meals applies to children as well as to adults, but perhaps is even more urgent in the case of the former.

Over-Eating

The question is not how much food can be put into the stomach, but rather how much can be properly digested and assimilated into the blood. Strictly, food in the stomach is still outside the body, although it is capable of causing a great deal of discomfort and pain. Taking too much of even the plainest and most wholesome food throws unnecessary work upon the digestive and eliminative organs, and if the practise is continued for any length of time it must lead to dyspepsia, if not to some more serious disorder.

Natural Hunger

We wonder how many people wait for natural hunger before partaking of their food. When a man is really hungry, his digestive organs are almost always prepared to deal with the food which he takes, providing it is reasonably wholesome and properly masticated. If the quantity of food were limited to the real requirements of the body, and if people should now and again skip a meal when they are not actually hungry, they would not only enjoy plain food better, but also escape much of the stomachic disturbances from which they are prone to suffer. The best sauce, by the way, for either breakfast or dinner is exercise in the fresh air, which always brings a natural desire for food.

Drinking With Meals

The free drinking of any form of fluid with the food not only interferes with mastication by washing down the food into the stomach too rapidly, but also has the effect of diluting the digestive juices and thus retarding degestion. An occasional sip of fluid is not paticularly harmful, but free drinking is, and this is particularly true of certain unfortunately common drug drinks such as tea and coffee.

Tea, Coffee, and Cocoa

If we were to make the statement that nine out of every ten people in the United Kingdom are today enslaved by the use

of a poisonous, habit-forming drug, many people might be surprised into asking: "What is it ?" The answer is: Tea. According to Dr. Robert Hutchison, tea is "*in no sense a food*," but it is, on the other hand, a poisonous narcotic beverage. Its daily use soon sets up a craving for it which is oftentimes exceedingly difficult to overcome. Tea, like tobacco, has a pleasant, soothing influence which arises, however, from the benumbing, paralysing effect of the drug upon the sensory nerves. When this temporary effect passes off there is a demand for another cup of tea, so that many people are kept under its influence more or less constantly, except while asleep at night. Many people find it necessary to have a cup of tea in bed in the morning, and by its frequent use keep themselves in a state of seminarcosis.

Alcoholic Beverages

It is only necessary to mention these drinks in order roundly to condemn their use. Alcohol is in no true sense a food. It does not benefit the body in any way whatsoever, but its influence is, on the contrary, always harmful, whether we regard the nervous system, the digestive organs, heart, kidneys, or the liver. The unnatural craving, not only for alcohol, but also for tea, coffee, and cocoa, is one of the most common symptoms of dyspepsia and debilitated nerves.

Extremes of Heat and Cold

The frequent use of very hot drinks or foods, or ice cold drinks or foods, must also be emphatically forbidden. Were we to consider the welfare of the teeth alone we should be obliged to condemn utterly both hot and cold drinks and foods. Extremes of cold and heat in the food have a debilitating effect upon the digestive organs. They also interfere with the proper mastication of the food, and their influence must be regarded as another important factor in the production of dyspepsia.

Furthermore, there is abundant evidence to show that foods or drinks which are intensely hot or cold cause irritation in the stomach which is likely to lead to the growth of cancer.

"Digestive Pills"

"Eat what you please, but take our Digestive Pills afterwards," is the substance of an advertisement we once saw. It is a complete fallacy to think that any digestive pills are benefical, and the same, by the way, is true of all digestive teas and coffees. The name is an entire misnomer. We trust that some day we shall as a people, learn that the only benefit of the use of patent madicines and secret remedies is that which is conferred upon the pocket of the manufacturers and vendors. The consumers never sustain anything but injury from the use of such medicines, either directly through their poisonous effects or indirectly by neglecting a disorder which should be promptly and properly treated.

Constipation

Let no one think that he has a good digestion if he is suffering from constipation. Sluggish bowels as a rule mean a sluggish stomach and a torpid liver. By careful dieting and particularly by the selection of mildly laxative fruits, such as figs, dates, prunes, grapes, bananas, oranges, etc., it is possible to cure most forms of constipation. Olive oil in dessert spoonful doses at breakfast or dinner makes a most valuable remedy for inactive bowels, and it is at the same time a nourishing food.

Muscular Exercise

A quiet, inactive, sedentary life where there is a great deal of sitting in a more or less close or overheated room is another important factor in the production of dyspepsia. Properly to utilize the food eaten one must engage in a reasonable amount of physical exercise daily. A brisk walk in the fresh, bracing air, a spin on

the cycle, a round of golf, a game of lawn tennis or croquet, or some similar exercise —all these make excellent antidotes for dyspepsia.

A Final Don't

If we were not to raise a warning against the common habit of worry and of taking anxious thought for the morrow this article would be very incomplete. Bolt your food with little or no mastication and then worry about your digestion or business or family cares, or anything else, and you are doing your best to court indigestion and dyspepsia. The man or woman who expects to enjoy a good digestion and sound health must overcome the habit of worry, and be able to bring to the breakfast or dinner-table a cheerful countenance and a hopeful, optimistic spirit.

The Cause of Skin Disease

TO what extent disease may be due to an improper proportion of ash in the food, is certainly not definitely known at present; but that the lack of one or more of these mineral constituents may have a very serious influence on the bodily health has been proclaimed for some time by men both within and without the regular ranks of the medical profession. In the St. Louis *Medical Review* of May, 1912, is an article entitled. "The Cause of the Cause of Skin Disease," by John Aulde, M. D, of Philadelphia. Dr. Aulde believes that many skin troubles are due to an excess in the body of magnesium salts and a deficiency of lime salts. He says: "All foodstuffs contain mineral salts, especially lime and magnesia, and these are essential elements in making the daily repairs to the human body because they enter into the constituents of every cell, whether bone, muscle, or nerve. Such being the case, in regulating the dietary it is necessary to consider the proportions of these minerals which are necessary to maintain the healthful condition of the economy."

He goes on to show that children, by nature, prefer butter, cheese, and cream, to corn-meal, rice, or flaked wheat, because the former, he says, are rich in lime, while the latter are rich in magnesia.

Now, according to the doctor, if we disregard these natural instincts of the child, and use the foods which are rich in magnesia instead of the lime foods, the result will be skin eruptions of various kinds; in fact, he seems to think that this may afford some explanation for the cause of pellagra, which many believe to be due to the use of corn as a food.

It would be impracticable in a popular article of this kind to explain fully the nature of Dr. Aulde's article; but the gist of it is that an excess of magnesia in the tissues, coming from an excess of magnesia in the food, results in acute and chronic non-infectious or non-parasitic skin troubles.

In the beginning of skin troubles, he finds it efficacious to place the patient on foods rich in lime; when the condition has become chronic, he finds it necessary to use with the proper foods an "alterative" in addition, which enables the tissues to change the magnesia they have already taken up for lime. He uses for this purpose calcium iodid, in very small doses.— *Life and Health.*

KEEP GOING

WHEN one task is finished, jump into another. Don't hesitate. Don't wait. Keep going.

Keep going. Doing something is always better than doing nothing.

For activity breeds ambition, energy, progress, power; and hesitation breeds idleness, laziness.

Tropical Hygiene

THE important subject of Tropical Medicine and Tropical Hygiene is at the present moment being seriously considered not only by the Medical Profession in all parts of the World but also by the leading statesmen of almost every Great Power with a view to colonization and thus providing an outlet for their already populous and over-crowded cities and towns. In Meredith Townesend's "Asia and Europe," the following statement occurs: "It is probably much more possible for white men to colonize a tropical country than is imagined, especially if the Colony was so organized that sanitary laws could be enforced from the very first." Major R. J. Blackham discussing this matter in a handbook on tropical hygiene which has been recently published is of opinion that whatever may be said on the subject of actual colonization, one point is universally conceded—namely, that by the knowledge and application of hygienic principles the health of white residents in the tropics may not only be conserved but maintained in full vigour for prolonged periods. With this statement we are in full agreement. Curiously enough, although this subject of tropical medicine is dealt with in numerous text-books, the kindred one of tropical hygiene has not received nearly so great attention except at the hands of military medical writers such as Firth, Daviss, Caldwell, Hehir, Melville, Roberts, Aldridge, Blake, Knox, Barnett, and Lelean. For this reason we are pleased to recommend to our readers the handbook just named although we note with regret, that with the exception of Daviss and Hehir's names those of the other eminent writers referred to have not been included in the reference list of these authors, references from whose valuable works the author states he has freely quoted. Why no use or reference has been made, is not for us to ask but such an addition would, we think, have added to the value of the work.

The first principle of tropical hygiene is to be found in the clearance away of all overgrowth of bushes and vegetation in the vicinity of all human dwellings; this permits sunlight and sunshine to purify the surface of the soil. The second great principle is to remove daily or oftener if possible all excreta, refuse and waste materials likely to decompose and pollute the air, food, or drink of human beings. The third factors of health lie in the proper ventilation of the dwelling place and its contents (bedding, clothing, etc.) and the proper care and preservation of all food and drink. From experiences gained on the West Coast of Africa which used to be notoriously unhealthy, we are inclined to lay very great stress on the clearance away of all overgrowth of bushes and vegetation in the vicinity of dwelling houses. The sun can only act as a powerful disinfector and cleanser of disease if it reaches the soil and we think the soil should be turned over occasionally to render this purification more efficient. If shrubs and rank vegetation are left close to buildings occupied by human inhabitants, no such purification can take place, and the dwellers are living so to speak upon their own soiled areas which in time become more and more polluted. The fashion set in India of people surrounding their bungalows with trees and bushes and the like while often pleasing to the eye and rendering dwelling houses cool, are dangerous in that they harbour damp and decay and afford a resting place for flies which are obnoxious in that they propagate disease. Sunshine is Nature's best disinfectant and vegetation that shuts out the purifying power of the Sun is not consistent with health. Irrigation

channels, water tanks and oramental waters in the vicinity of houses occupied by human beings are also always a source of danger where health is concerned. Damp buildings, damp floors and damp walls all contaminate and vitiate the air and lead to disease and therefore should be avoided and are best remedied by drainage and removal of all trees; bushes and undergrowth for a hundred yards in the vicinity of such buildings—wet, cold, and damp are all dangerous surroundings for human beings under any circumstances and dry air, dry clothing and surroundings as well as warmth should always be aimed at if the best results to health are to be obtained—*Indian Medical Record.*

Feeding the Baby

The Care of the Bottle

FROM the day of my baby's birth I had feared that she might have to be a bottle baby. So fearful was I that, before my nurse left, I had her tell me explicitly how to care for bottles, and these directions I wrote in my notebook. "Sterilising," "pasteurising," "bottles *absolutely* clean—no germs," "nipples in borax water"—she used these terms commonly; it seemed so difficult, this task of bottle-feeding. The nurse told me that it was. That nothing but eternal vigilance and the greatest care could healthfully make bottles take a mother's place.

When baby was four months old the worst had happened; bottles had become a necessity! That first preparation of modified milk—shall I ever forget it? I had bought eight nursing bottles with nipples, a jug that held two quarts, a box of sugar of milk, and some limewater, and, with this outfit and the formula my physician had given me, I prepared the milk with his help:—

Bottles washed with bottle brush in hot borax water, then rinsed and boiled.

Nipples ditto; put in covered glass when boiled.

Small new granite kettle for sole purpose of boiling water for baby.

I purchased certified milk from a dairy which made a specialty of milk for babies. This milk had the cream well risen, and, removing the first ounce with a teaspoon, I then used my cream dipper to dip the remaining necessary ounces of cream, putting it in the jug with the milk sugar, boiled water, and plain milk, mixing all together. Each bottle was then filled; stoppered with absorbent cotton, and "pasteurised," which was done in this way: a high granite kettle was half filled with boiling water, the bottles quickly placed in this to remain thirty minutes, then set in ice water to chill rapidly. In this way enough food for a day was prepared at one time, and had only to be warmed when needed. As each bottle was emptied it was immediately rinsed, then filled with water and put aside for the next morning's washing. The nipple was at once put in borax water.

After this first preparation I drew a long breath; with my doctor to give me a new formula every month I felt that I could overcome the dangers of bottles. But worse was yet to come. Baby refused to take a bottle! For one whole week we struggled with her, trying her at each feeding, day and night. She cried until she could cry no more, until she was hoarse. Bottles were a necessity; what was to be done? She was losing weight daily. The doctor was called in at the end of the week. I was shut out of the nursery, and by main strength he forced her to take the bottle! A simple expedient would have prevented all this. Had she from birth been given drinks of water daily from a bottle there would have been no trouble. No mother can tell how soon it may happen that her baby will have to become a bottle baby; and this hint ought never to be forgotten.—*Lola D. Wangner, in Ladies' Home Journal.*

The House We Live In

From Food to Blood

We hope our readers have paid close attention to what we had said on the physical make up of the body. If they have studied the articles we have written upon the anatomy and physiology of the body, or kept them where they can refer to them from time to time, it will help them to understand what we will have to say about the diseases to which our bodies fall a prey. After we have gone over the various parts of the body, and shown their construction, we are going to devote this department of the "House We Live In" to a description of some disease each month. In order that our readers should throughly appreciate the cause, prevention, and treatment of these different diseases, they must be somewhat acquainted with the construction of the different systems that make up the body, as this forms the foundation for unravelling all diseases.

In our last article in this department we considered the changes which take place in the food on its course through the body finally to be utilized in the form of energy in the human body. All that we have said about this subject thus far is included under the term, digestion, but now we arrive at two very important parts of this work called absorption and assimilation. The former is a word used to describe how the digested food finds its way into the blood stream, while the latter is the method by which the living tissues of the body derive from the blood the absorbed food for their proper maintenance and growth.

Absorption takes place monthly in the stomach and small intestines. In the mouth and æsophogus the thickness of the mucous membrane and the quick passage of the food through these parts reduces absorption to a minimum. The large intestine, although having no villi has some power of absorption. The central place of this work is in the small intestine because of the large area for absorption made by the villi and the folds into which the mucous membrance is thrown.

In the food we eat, as already mentioned, there are carbohydrate foods, as rice and potatoes, proteids like lean meat and the legumes, the fats like butter and cream, and the various salts. These, after being digested and put in suitable form do not get to the tissues by the same course. Water and the salts are absorbed, unchanged. The other foods are absorbed mostly by means of the villi.

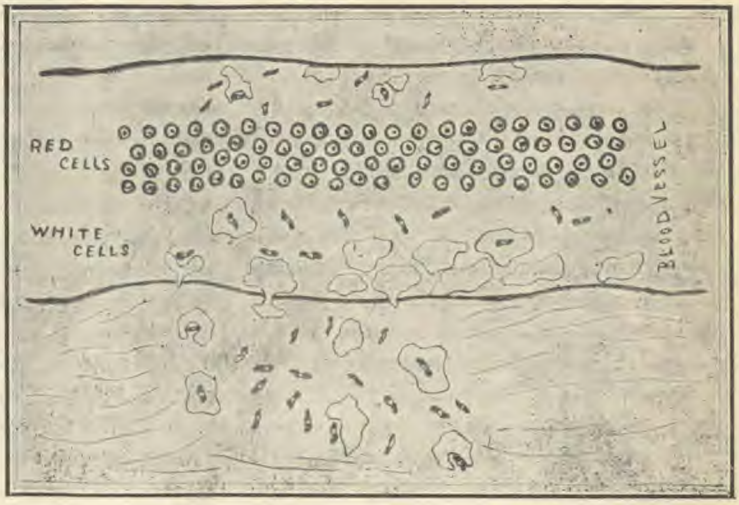
The villi lie in direct contact with the digested food in the intestine and is covered over with what is called a layer of epithelium, a single layer of cells. This epithelmun is a part of the mucous membrance of the intestine.

If you will notice in the illustration, a blood vessel and a small channel which is called lacteol, come up into the summit of the villus. Dextrose and serum albumin, the end products of starch or carbo-hydrate and proteid, digested are selected by the cells constituting the epithelium, covering the villus, and taken into the blood vessel. This change is allowed to take place by the extreme thinness of the bloodvessel wall. The blood vessel being a branch of the Portal vein carries these digested foods to the liver, where a part of the dextrose, or kind of sugar, is stored up in the liver, as glycozen. The Serum albumen, and the rest of the sugar is

taken from the liver by the Hepatic veins which carry their digested foods into the Inferior Vena Cava, a large vein that empties into the right side of the right auricle and thus those foods gain access to the general circulation.

The glycerol, fatty acids, and soap, or the digested fats, take an entirely different course to get into the general circulation. They go through the epithelial cells into the lacteals, which are shown in the illustration, from whence they are carried to the Thoracic Duct, a large lacteol made up of numerous small lacteols.

The Thoracic Duct empties into the Sub-clavian Vein, the blood of which eventually empties into the right side of the heart and thus the digested fats enter the general circulation. This completes the process of absorption and leaves the digested foods in both the fluid and solid constituents of the blood.



The digested food is now carried by the smaller ramifications of the arterial system, after going through the lungs, to the various tissues of the body. The cells that make up the tissues of the body and the arteries have such thin walls that with the selective influence of the cells the digested foods in the blood are given up to each individual cell upon which the vital processes of the body, taken as a whole, depend.

This completes the process of assimilation, the carrying of the digested foods from the blood currents to be utilized by the living cells of the various tissues of the body. Some cells select more of one kind of food, while other cells select more of other kinds of food. The cells that go to make up the bony tissue utilize more of the salts that are absorbed into the blood current without change. The cells making up the fatty tissue of the body have the power of selecting that particular kind of food needful to maintain it as a distinctive type of tissue. The same thing is true of the muscular tissue and the other tissues of which the body is composed.

When we stop to think of it, we are wonderfully made. What a pity it is that we continue to abuse this finely constructed machine that is allotted to our care. Think of irritating and wearing out these delicate little cells that we have just been considering by forcing too much good or bad food upon them. What a wrong it must do to these little, frail, living units to keep them bathed in alcohol, tobacco, tea, coffee, and other harmful substances. It is in the cell that disease starts when we get sick. The cells feel it, or rather the disease process begins in the cell long before the individual himself feels any thing, and long before the phy-

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Dairy Products

GEORGE E. CORNFORTH

Artificially Prepared Buttermilk

BUTTERMILK has long been recognized as a wholesome food, possessing health-giving properties. But buttermilk is deprived of the fat of the milk, and from the fact that the milk may have been old and germ-laden before the butter was made, the buttermilk may not be of the cleanest or most wholesome nature. By making use of the germ which causes the souring of milk, an artificially prepared buttermilk may be prepared which is free from harmful germs, and which contains all the food constituents of the milk. There are various brands of buttermilk tablets on the market for the preparation of this milk. They may be obtained at a drug store. The process of making the milk is as follows:—

Pulverise one tablet, and dissolve it in a little cold water. Sterilize one quart of milk, and *cool it until lukewarm.* Add a few grains of salt and the dissolved tablet. Stir well. Set in a warm place where the temperature would be right for setting yeast bread to rise. Keep it at that temperature for forty-eight hours. At the end of that time, possibly it might be a little longer or a little shorter, it will be thickened. Set it in the refrigerator. When cold, whip it with a batter whip till it is creamy. When more is required, it is not necessary to use another tablet. One-fourth cup of this prepared milk is sufficient to make one gallon. Proceed as in making the first quart, using the one-fourth cup of prepared milk in place of the tablet. It will probably not be necessary to allow it to stand much more than twelve hours when made in this way. The new lot should not be prepared from the old milk more than three or four times, because other germs are sure to get in, which may cause some trouble in properly preparing it. It should not be allowed to stand too long in a warm place. If it does, the whey may separate from the curd, and the result will be a thin, watery milk instead of a thick, creamy one. Just as soon as the milk thickens, it should be put into a cold place. This buttermilk may be prepared from skim-milk, but it will not be so thick and rich as when prepared from whole milk. Some recipes call for the addition of water to the milk when the tablet is added. This makes a thinner and less rich milk. This milk may be prepared in bowls instead of in one large dish, and put into the refrigerator after the milk thickens. When cold it may be eaten with a spoon. A bowl of this with zwieback would make a wholesome and nutritious lunch. Or it may be put into small molds or custard cups to thicken. After it has become solid, set in the refrigerator to become very cold. The molds may then be turned out and served with cake or crackers. A little sugar is usually eaten on it when it is served in this way. Cream and sugar may be used.

In this sour-milk preparation the casein of the milk is in the form of fine, flaky curds, which are very easily acted upon by the digestive fluids. It can not form large, hard curds in the stomach.

Cottage Cheese

The best of cottage cheese may be made from milk prepared according to the above directions. The soured milk should be prepared in a shallow pan. With a knife cut the milk into two inch cubes. Set the pan in a moderate oven, and heat the milk to just a little above lukewarm. Heating it too hot will make the cheese tough, and you will get less cheese. Do not stir the milk. This also will lessen the quantity of cheese. When the whey has separated, pour the milk into a cheese-cloth bag, and hang up to drain. Remove from the bag and season with salt and cream. The cheese may be formed into balls or cakes if desired.

Cottage cheese may be made from ordinary sour milk by the same process. Soured skim-milk may be used: but the cheese made from skim-milk is not so pleasant nor so nutritious as that made from whole milk.

Junket

Junket is prepared by coagulating milk with rennet. Rennet is a digestive principle obtained from the lining of a calf's stomach. The same ferment is secreted by the human stomach, and whenever sweet milk is taken into the stomach, it is very soon turned to junket. Junket tablets may be obtained at any druggist's and at many grocers'. To prepare junket:—

To one quart milk add one-fourth cup sugar, a few grains salt, and a little lemon or vanilla flavouring. Heat until *lukewarm*. Junket can not be prepared from sterilized milk. Add one junket tablet, which has been dissolved is one tablespoonful cold water. Turn into custard cups *at once*. Allow to remain in a warm place without disturbing till set, which will take but a few minutes. Then set away in a cold place. If allowed to remain warm too long, it may sour, or the whey may separate. This makes a simple and wholesome dessert. It is very digestible, because the casein is coagulated into a soft curd, and it can not form large, hard curds in the stomach.

Whipped Cream

The most convenient way to whip cream is to put it into a tall, narrow pitcher or tin can just large enough to allow the egg beater to revolve in it. Have the cream cold. Add flavouring, and sugar in the proportion of one level tablespoonful to one cup of cream. Beat till the cream thickens, but do not expect it to become as thick as butter, because it will begin to turn to butter before it becomes as thick as that. Stop whipping while the cream is still smooth. If beaten too long, it looks rough and curdled.

Butter

The wholesomeness of the average butter found on the market may be seriously questioned. In fact, both cream and butter contain more germs than an equal measure of the milk from which they were obtained. I wonder how many of our readers have ever tasted butter which was perfectly sweet and free from tainted odor or taste. I am free to say that I have seldom tasted butter whose taste or odor did not suggest the flavour of old milk, or old butter, or something bordering on rancidity. Perhaps this flavour is commonly thought to be the natural flavour of butter. But when butter is pure and clean, it has a sweet, pure taste and odor; and such butter is seldom found, perhaps never, unless it is made from clean, pure, sterilized cream. Miss Ida May Pryce says in a recent magazine that oleomargarin "is cleaner and purer than most of the dairy butter as made to-day." We would not eat oleomargarin, because it is an animal fat. But if oleomargarin is cleaner and purer than most of the dairy butter as made to-day, that fact gives emphasis to the first statement in this

(*Concluded on Page* 68)

Mother and Child

Nursing in Contagious Diseases

(Continued from February.)

Scarlet Fever

This is an acute, contagious disease characterized by high fever, a scarlet rash, sore throat and a tendency to nephritis. The contagion usually is carried through clothes or in food, especially milk. The disease makes its appearance from a few hours to a week after exposure. It usually commences suddenly with vomiting or convulsions, sometimes with a chill. The throat is painful and there is difficulty in swallowing. Examination shows the throat and entire posterior part of the mouth inflamed. The tongue at first is coated, then this disappears and the papilla become bright red and swollen giving the appearance known as "strawberry tongue."

The rash usually lasts from five to seven days and is followed by a period of desquamation lasting from two to six weeks. The most dreaded complication is nephritis or inflammation of the kidneys. The urine should be examined daily, for even a mild attack of this disease may cause a serious kidney lesion. Plenty of water should be given to flush out the kidneys.

Among other complications are inflammation of the middle ear, which may produce deafness, and endocarditis or inflammation of the lining of the heart. The patient should be kept in bed even though the attack be mild, as this prevents a strain on the heart. The bowels should be kept free and the body bathed every day to relieve the kidneys of some of their work. The throat should be sprayed or gargled every few hours with some mild antiseptic solution, as boric acid solution. The child should not be allowed to "blow" his nose hard as this tends to force some of the secretions into the passages to the ears. In this disease, as well as in measles, oil rubs night and morning are very beneficial.

Diphtheria

This is an acute, contagious disease accompanied by moderate fever, great prostration and the formation of a false membrane upon certain parts, especially the throat and adjacent parts. The exciting cause is the Klebs-Lœffler bacillus, although the contraction of the disease is favoured by damp houses and unhygienic surroundings.

Three-fourths of the cases occur in children before the tenth year. The disease commonly begins with fever, sore throat and a general tired feeling. The fever, as a rule, is not very high but the prostration is great. The child complains of difficulty in swallowing. Examination shows the presence of a false membrane, a grayish white coat which, when stripped off, leaves a raw, bleeding surface.

Absolute rest must be enforced during the course of this disease. It is better that the atmosphere be kept moist by generating steam in a kettle or by slaking quicklime in the room. The mortality from this disease has decreased wonderfully since the introduction of antitoxin. The best results are obtained, when this is given in the early stages of the disease. Aside from this, stimulation may be necessary at times. One great danger is heart failure. This danger is not past when the child apparently is well. In many cases anæmia, or lack of good blood, fol-

lows this disease and must be treated by tonics, fresh air and nourishing food. Paralysis of some portion of the body sometimes follows, but this usually disappears within a few months.

Whooping Cough

Almost every spring an epidemic of whooping cough appears in towns, perhaps due to germs that have remained in the house all winter but have just been aroused by the spring cleaning. Probably the first symptoms noticed by the mother are a slight hacking cough which gradually is prolonged and increased in severity. It does not seem to respond to the ordinary remedies. The paroxysms seem to be worse at night when the child is lying down. The general health is not much impaired although vomiting may follow a severe spell of coughing. Usually the typical whoop is not heard until about three weeks. The child may have from twelve to fifty severe paroxysms of coughing during the twenty-four hours. The stage of whooping lasts about three weeks although the cough may remain for some time. The entire course of the disease varies from a few weeks to several months.

The chief dangers are the sequela or the results. Pneumonia or tuberculosis not uncommonly follow this disease. The latter, especially, makes its appearance so insidiously that its presence frequently is not suspected until irreparable ravages have been made. In the early stages of the disease, the severity may be lessened by spraying the mouth and throat several times a day with a mild antiseptic solution. Fresh air, sunlight and protection from inclement weather are necessary. A tight binder pinned around the abdomen will be found to lessen the severity of the coughing and also tends to prevent vomiting. As vomiting is common, it is better to have the child eat a little every two hours than to eat three full meals. If the coughing period is prolonged, the lungs should be tested about every week so that tuberculosis may not become established without the knowledge of the parents.

Precautions for the Nurse

The nurse should take precautions to avoid contracting the disease. She should sleep near an open window, never with the patient between her and the window. She should be out of doors as much as possible when off duty. She should bathe and change her clothing frequently and spray her mouth, throat and nose with an antiseptic solution. Her dishes should be separate from those used by the patient. After the patient is well she should bathe, wash her hair and put on clean clothing.

When to Call the Doctor

As so many of the diseases of children commence with similar symptoms as cough, vomiting and fever it is better to call a physician at the commencement be-

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"MOTHER"

She gave the best years of her life
With joy for me,
And robbed herself, with loving heart,
Unstintingly.

For me with willing hands she toiled
From day to day,
For me she prayed when headstrong youth
Would have its way.

Her gentle arms, my cradle once,
Are weary now;
And time has set the seal of care
Upon her brow.

And tho no other eyes than mine
Their meaning trace,
I read my history in the lines
Of her dear face.

And 'mid His gems, who showers gifts
As shining sands,
I count her days as pearls that fall
From His kind hands.

---Selected.

cause in many cases the severity of the disease may be lessened by early treatment. Many deaths are due to the fact that the child was not considered seriously ill and a doctor was not called until a few hours before death, when it was too late.

Disinfection

After the child has recovered, it is necessary to prepare the room so that it may be used again by the family. As a rule, quarantine should be continued until all desquamation has ceased. The palms of the hands and the soles of the feet usually are the last too peel so these should be examined. If the peeling has ceased but there is a discharge from the nose or ears, there still is danger. When the quarantine is to be raised, the patient should be given a full bath, the hair washed and clean clothing, which has not been in the sick room, provided. The room then should be made air tight by sealing all openings around the windows and doors. The closet doors should be opened as well as the drawers to the dresser. The bed clothing should be spread around the room and formaldehyde gas set free in the room. This may be done by different methods. Regular formaldehyde generators frequently are used. In some cases, wet sheets are sprinkled with the formalin, which is a forty per cent solution of formaldehyde, and hung about the room. The room then should be left closed for twenty-four hours.

All books and papers are better burned as it is difficult to disinfect them sufficiently. Everything possible should be boiled. All toys are better burned or boiled. When the child is recovering from a contagious disease, there is a period when he feels well but must be quarantined. This period is one of the most trying to the nurse who must devise amusement for the little one. The making of paper dolls and dresses is one of the most desirable occupations, for these can be destroyed afterwards. It is better that the child should not know of the destruction of the toys for he will not understand the necessity and may have a feeling of resentment. It is better to quietly substitute new dolls and toys for the old ones and the child probably will not notice the difference.—*Dr. Edith B. Lowry in Mother's Magazine.*

Dairy Products

(Concluded from Page 65)

paragraph. Sterilizing butter will kill the disease germs, but may not remove all the objections to it due to its being produced in an unclean, insanitary manner.

To Sterilize Butter

Boil the butter in water for fifteen or twenty minutes. Allow the whole to get cold. Remove the butter from the top of the water. It will have a grainy consistency, which makes it unpalatable, and will have lost its salt, which dissolves in the water. To overcome these objections, warm the butter just enough to melt it, add salt and beat it with an egg beater while it cools. This gives it a smooth, creamy consistency.

Sterilized butter may be made from sterilized cream by the usual process of making butter. It may be made in small quantities at home by sterilizing the cream, and allowing it to stand in a cold place till the next day, then whipping it till it separates, draining off the buttermilk, washing with cold water, and working in salt.

HE who eats till he is sick, must fast until he is well.—*Selected.*

MILK FEEDING IN CHILDREN AFTER FIRST YEAR.

VOGT cites a number of instances to prove that many children may be injured by a liberal milk diet. The long-retained dogmatic belief of the medical profession that milk is not only the ideal food for infants, but for every age and every ailment, must be abandoned. The requirements which the food of the infant and that of the older child have to meet are quite different. The infant needs for the construction of his rapidly growing organism relatively large quantities of fluid, as well as of solid matter, to be retained as living substance. The older child and the adult, on the contrary, require above all, a supply of material which will furnish the amount of energy necessary to provide for the maintenance of the temperature of the body and the production of muscular work, both of which play only a minor part in the case of the infant. Again, milk lacks certain constituents which must be present in the food of adults and older children. It is extremely poor in iron, it is entirely lacking in purin bases, and last, but not least, it is for most people unappetizing. This last constitutes a very real defect for individuals who have passed their first year.—*Journal A. M. A.*

KEEPING COOL IN SUMMER.

DURING the hot summer months many persons are overcome by the heat, while all at times more or less inconvenienced by its injurious effects. Heat prostrations are due largely to the fact that the laws of health and hygiene are transgressed.

It is in the densely populated districts that people are most prone to succumb to the influence of excessive heat, due to their living below the health line and in unhygienic surroundings. In order that we may be able to live comfortably in summer and lose our susceptibility to the heated atmospheric conditions, it is well to consider carefully the following suggestions.

OVER EATING.

ONE of sedentary occupation suffers more from over-eating than the labouring man. Physical activity not only creates a demand for food, but it also furnishes the power to transform that food into tissue.

The sedentary man needs food as much as the labourer, but owing to muscular inactivity he is not so capable of converting his food into assimilable materials. If he eats two or three times the amount the system requires it will not be properly digested, so will cause fermentation. If this be allowed to continue for some time the system is poisoned and eventually causes indigestion, nervousness, and sleeplessness. It is while in this condition that one suffers from extreme heat.

In the poorer, congested districts, prostrations are caused by improper foods and by unripe or over-ripe articles of diet. Food, water, and air are more or less contaminated, while the environments are unhealthful on account of poor sanitation.

In warm weather, meats, oils, and fats, should be reduced to a minimum, or omitted entirely, and fruits, vegetables and cereals should be substituted. The first and best way to keep cool is to avoid heavy and stimulating foods, and to reduce the amount of other articles of diet to that merely required for the sustenance of the body. Refrain from intoxicants and decrease or avoid tea, coffee, and condiments.—*M. S. Journal.*

GROWING USE OF LIQUOR AND TOBACCO.

ONCE more temperance workers and anti-tobacco crusaders are greeted with discouraging news from the United States Commissioner of Internal Revenue. This time Mr. Cabell sends out the information that during the three months of July, August, and September, 1912, we, as a nation, smoked 3,800,000,000 cigarets, an increase of 1,000,000,000 over the corresponding period last year; drank 33,150,000 gallons of whisky, an increase of 459,000; smoked 1,950,000,000 cigars; and drakn

19,800,000 barrels of beer, an increase of 320,000 barrels. Upon which facts, as set forth in the daily press, the New York *World* moralizes editorially as follows:

"This increased addiction to liquors and tobacco has occurred in spite of a prohibition sentiment which has found expression in recent years in much new compulsory abstinence legislation on statute books, as well as in the regulations of railroad and industrial corporations, and in the face of a notable extension of the agitation against smoking in public places. No doubt the fundamental cause of the increase in both cases is the possession by the public of more money to spend for intoxicants and tobacco."—*Literary Digest.*

WHY FLESH FOOD IS INJURIOUS?

"Uric acid is increased as much as three times above the normal in flesh-eaters, and the amount of urea, secreated by the kidneys, is doubled by the use of a flesh-diet. These important organs, therefore, are overtaxed. Can we wonder, then, that so many people suffer from *rheumatism, gout, calculus, Bright's disease* and many other maladies which are distinctly traceable to this potent poison! The fæces of a person, who indulges in a meat diet, are twice as poisonous as of one who lives upon a non-flesh diet, while the latter is the more robust and capable of greater endurance than the former."—*The Canur Scourge.*

The Secret of Athletic Success

D. H. KRESS, M. D.

THE wastes formed by the breaking down of tissue act as muscle or tissue poison. The weariness experienced after severe exertion is due to the accumulation of these products. In old age, on account of the inability of the eliminative organs to carry off all the wastes, there is usually a sensation of weariness or exertion. The same is true in those afflicted with Bright's disease; the elimination by means of the kidneys being defective, the wastes accumulate, and constant weariness is experienced.

Beef extract is a solution of tissue poison. In the animal, as in man, these wastes are constantly forming, and life depends on their constant elimination. There are two streams of blood,—one carrying to the tissues life gathered from food, air, and water; the other carrying away waste matter. The dead products resulting from body activities necessitate a means by which they may be swept out of the system. This process of elimination is carried on by the venous and the lymphatic circulations. One stream carries life to the tissues; the other carries death from the tissues. When an animal is killed, the venous blood and the lymph containing the dead matter, or tissue poison, are retained. In squeezing the juice out of flesh, we extract the dead and effete products that were on their way to the kidneys, lungs, skin, and liver for elimination. By experiments made upon animals, it has been discovered that an injection of beef extract causes death quicker than an injection of an equal amount of urine.

A muscle may be carefully dissected from the leg of a frog, and to one end of this muscle a thread be attached, by which a weight may be suspended; upon stimu-

lating the muscle by means of electrical currents, it contracts and raises the weight. After several repetitions of this act the muscle no longer responds to the stimulation ; it is now really in a state of poisoning, or fatigue. Tissue has been broken down by exercise, and there being no means of elimination, the accumulated waste causes paralysis of the muscle. After carefully bathing this muscle in a mild saline solution, thus washing out the wastes, we find upon applying electricity that it contracts and lifts the weight as before. Place upon a fresh muscle a few drops of beef extract, and it will not respond to stimulation by electricity. Why is this ? The beef extract and the poisons formed by exercise of the muscle are identical. Beef extract is therefore one of the worst substances that can possibly be taken by athletes. It is not a food, but "a veritable solution of poison."

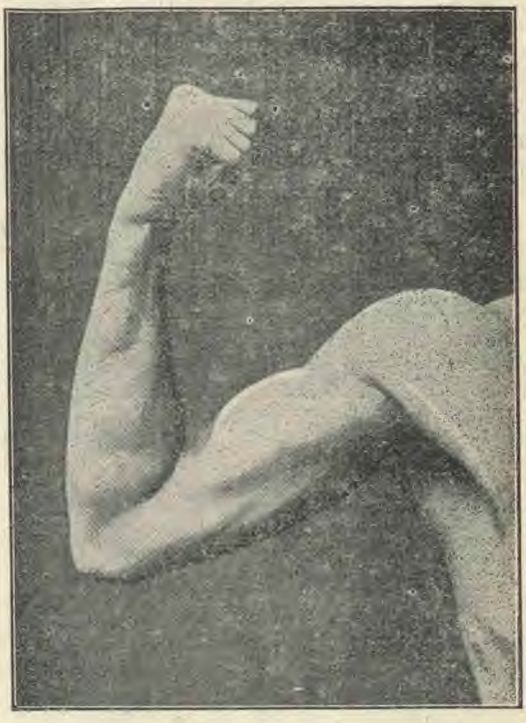
The athlete who depends upon beef extract or subsists on a flesh diet, throws into his circulation products that may cause defeat ; for the eliminative organs are not equal to the task of keeping the muscles freed from these wastes, in addition to the wastes normally formed. Muscular fatigue must follow.

It has no doubt often been observed by athletes that in running, or riding the wheel, the first hour is very difficult ; after this they obtain their "second wind," as it is termed. The first stage of fatigue is due to the rapid accumulation of wastes ; but after free perspiration has begun, there is less fatigue, the muscle poisons being eliminated nearly as fast as formed.

It is evident that the future must be with the athlete who eschews a flesh diet, —beef extracts, etc.,—with the one who keeps his system free from additional wastes by taking his food direct from the vegetable kingdom, and not at second hand. In fact, in endurance tests, such as long-distance walking matches, the vegetarians have repeatedly outclassed the flesh eaters.

IS IT WORTH WHILE

THE whole trend of the advice of some of the crazy health culture magazines seems to be that everybody—be he man



woman, young or old—should be an athlete.

Some men are born with physical strength, and are able readily to acquire skill, and so are natural athletes. But for the average man of ordinary strength to seek to excel by long process of training and discipline is not only waste of time or waste of strength, but shortens his life thereby.

Don't try to be an athlete. Seek rather to be an all-round man with a good stomach, competent muscles, clear head, and a capacity for endurance in the performance of your own work.

Herald of Health,

The Indian Health Magazine

Published by the

International Tract Society,

17, Abbott Road, Lucknow

REGISTERED, - - - No. A. 457

COMMON TOWEL BANISHED.

An amendment to the interstate quarantine regulations, in force December 9, by the Treasury Department, orders the abolition of the common towel from railroad cars, steamer and other interstate vehicles and stations. Towels may be used again only after sterilization.

DRINKING AND SMOKING

ACCORDING to the report of the commissioner of internal revenue, the tax returns show that there were 450,000 more gallons of whisky and 320,000 more barrels of beer consumed in the third quarter of this year than during the same quarter of 1911; and cigaret consumption rose by a billion to a total of 3,800,000,000. And all this increased addiction has occurred in spite of a prohibition sentiment.

SPREAD OF SLEEPING SICKNESS.

Dr. Yorke, of the Liverpool School of Tropical Medicine, lecturing on sleeping sickness, said it was perfectly clear that the main reservoir of infection was big game. Whether anything would be gained by slaughtering them was still a moot point. He advocated an attempt to drive them back from the neighbourhood of human habitations, beginning with an experiment on a large scale in some particular district.

SCIENCE AN ICONOCLAST

We recently commented on the part imagination has played in scientific advancement. Instances were quoted in which the metaphors of early writers have become established as facts by science. Sometimes the foreshadowing may seem almost prophetic; no doubt it is often mere accident. Science hews to the line no matter where the chips may fall. Often an idol of the earlier epochs of thought is shattered. Thus we sought to avoid "colds" by avoiding all contact with cool, fresh air. Now, he who seeks to avoid infection of the respiratory tract wears light clothing and breathes air fresh from the open. A generation ago colomel was given to stir up the liver and increase the flow of bile. Now pharmacologists agree that whatever virtues colomel may possess, it is not a cholagogue. When we were boys candy and sweets were withheld from us as things productive of many serious derangements. Now pediatricians allow plenty of sweets as an essential part of the diet for children. Not long ago we were taught to avoid drinking water with meals, as the excess of fluid diluted the digestive juices and hindered digestion. Now it seems to have been demonstrated that water taken with meals aids digestion and facilitates absorption. And so it goes.

LIFE SAVING CONGRESS

THE second International Congress on Life Saving and the Prevention of Accidents will be held at Vienna in September (9th-13), 1913. His Imperial Highness, Archduke Leopold Salvator is patron of the Congress. Communication relative to the Congress should be addressed to the General Secretary, Dr. Heinrich Charas, Radetzkystrasse 1, Vienna 3.

FROM FOOD TO BLOOD

(*Concluded from Page 63*)

sician can detect it by means within his reach.

It is true, if we could put them under the microscope, we could see where in they were failing in their work. But this is often impossible to do until after the patient dies. Then we can detect the changes which have taken place in the cells. But it is too late, as we have had to wait until so many of the cells became crippled in their work that the body could no longer hold out and so has to lay down its task. Death therefore is an increasing loss in the activity of an increasing number of cells until the whole body becomes affected. This is true in the case of disease or old age. Let us give the little cells a chance to do their work well, and retain their freshness as long as we can.

The Electric Light Bath

—:o:—

"The Electric Light Bath is a powerful eliminative measure. A person begins sweating vigorously after being in the bath from three to five minutes. When used for short periods daily, followed by short cold applications, is an excellent tonic, and is used in emphysema, chronic bronchitis, asthma, and chronic heart affections. As an eliminative measure is used in obesity, acute Bright's disease, diabates, and lithemia."

The Electric Light Bath is one of the numerous methods used at the Sanitarium Treatment Rooms 75, Park Street, Calcutta. For fuller information, address the Manager.

Don't Poison Yourself

In the use of Tea and Coffee the user constantly imbibes the narcotic poisons of the beverage. By more advanced students of human ailments this process of slow poisoning is condemned as deleterious to both bodily and mental vigour, and a habit not to be indulged in by those who would enjoy the best health.

To provide a pleasing drink in substitution for these dangerous beverages we have, after careful study, produced a cereal substitute which we call Caramel Cereal.

Keep Yourself in Health

by using

CARAMEL CEREAL

The Health Beverage

Manufactured only by

The Sanitarium Health Food Co.

75, Park Street, Calcutta.

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