THE Herald of Health

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Sanitarium Bath and Treatment Rooms,

50, Park St., Calcutta

HERALD OF HEALTH

H. C. Menkel, M. D., - - - - - - Editor

A Public-Health Conscience

Much of the past has been devoted to partisan wrangles between castes and religions; thus was energy wasted that should have been spent in solving the social, economic and health problems of this country.

* * *

The indications are that we have come into more fortunate days. There is a wide spread realisation of the importance of working out a more comprehensive system of internal improvements, beginning with the individual and the home, and extending to the municipality and the nation. A public-health conscience is being created that will not tolerate much longer the awful waste of human life through preventable causes. The day is approaching when the individual who keeps his premises in an unsanitary condition, who sells contaminated milk or adulterated food, who through immoral practises spreads disease, and many others who are responsible for the spread of preventable disease will be counted as criminals, and called to account before a duly constituted "Board of Health."

* * *

Through the more general adoption of personal hygiene and sanitary regulations, the average span of life and the period of usefulness and productivity may be increased, and such diseases as tuberculosis, pneumonia, enteric fever, diphtheria, malaria and syphilis will be reduced from 40 to 25 per cent., and by more rigid attention to the right way in eating, drinking, dressing, and mental attitudes, an equal reduction in chronic diseases will be brought about.

* * *

No man has a right to endanger his own health, nor, so far as he can prevent, to permit anyone to endanger either his own or another's health.

* * *

If you are looking for a field of usefulness to your fellows, spread this doctrine of "Physical righteousness" and encourage every healthful practice.

* * *

No man is pardonable who will not take an active part in making India a more healthy country.

The Price of a License

—:o:—

WHAT'S the price of a license? How much did you say?
The price of men's souls in the market to-day?
A license to sell, to deform, and destroy,
From the grey hairs of age to the innocent boy—
How much did you say?

How much is to pay? How compare with your gold?
A license to poison—a crime oft retold—
Fix a price on the years and the manhood of man;
Take what is not yours to destroy if you can—
What's the price did you say?

How much for a license? How reckon the crimes
Men are caused to commit when besotted at times?
To take character, reason, foredoomed to the grave,
And give men your curses when pity cries, "Save!"
What's the price, did you say?

How much for a license? Count the price of the home;
Of the tears that are shed in its anguish and gloom;
Count the happiness lost on the vote that you gave
When you voted the license that made man a slave—
What price was to pay?

How much for a license? Count the price of her life
Whom your children called mother and whom you called wife,
Who died of her grief, heart broken away,
That her home was left bare of its bread day by day—
The license to pay.

How much to pay? Count the price of one soul,
Multiplied by names on eternity's scroll
Of those who have gone, once in manhood's strong pride;
Then add those who with them have suffered and died—
What's the price, did you say?

How much is to pay? You may count out the gold,
But the price to be paid has never been told;
Count the measure you mete out your neighbour to-day—
To be meted you back—but in God's time and way—
'Tis a debt you must pay!

—*Mrs. S. A. Gordon.*

Herald of Health

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Enteric Fever

THE mortality from typhoid fever is much higher in India than in the West. This is due, no doubt, to the debilitating effect of the heat, the unsanitary conditions of the country and the impossibility of exercising proper control over those who are infected with the typhoid germs.

This disease is now known to be due to an infection by one of five different groups of Bacillus, any one of which produces practically the same symptoms. A careful study of the life history of these micro-organisms divides them into two groups known as (1) Bacillus typhosus, (2) Bacillus paratyphosus, with the following important facts regarding each. The Bacillus typhosus depends upon man for its host. Its existence outside the human body is very short, therefore to become inoculated with these organisms one must come directly in contact with some person suffering from the disease, or who, having recovered, still harbours the germs in his system; these being discharged in the feces and urine. Such persons are known as "Bacilli Carriers," and although not suffering from the disease themselves may spread infection to many others. The usual channel through which the infection is conveyed from one person to another is through food which has been handled by a "Bacillus Carrier." Regarding the channels of infection Lieut. Colonel D. Simple, R. A. M. C. says:

"The opportunities for spreading infection are numerous in the case of harbourers of infection who have anything to do with the preparation or handling of food, milk, or drink supplies. Cooks, bakers and dairy men who happen to be "'Bacilli Carriers'" are perhaps the most dangerous people on account of the opportunities they have of handling media suitable for the dissemination of infection.

"In the published records of many outbreaks of enteric in Germany, England and America, in which the evidence was based on the results of scientific investigation, the sources of infection have been traced to carriers, some of whom had acted either as cooks, bakers, or who had attended in various capacities to food or milk supplies.

"Evidence of this class in the support of chronic carriers as sources of infection is increasing daily. A certain amount of evidence on the subject was collected in India during a recent investigation of enteric fever at the Central Research Institute, Kasauli.

"The following examples taken from the report on the investigation referred to will serve to illustrate what is no doubt constantly happening in every cantonment in India.

" In August 1907, a small outbreak of enteric fever occurring in a detachment of the Bedfordshire Regiment stationed at Kasauli was traced to a carrier who acted as cook to the section in which the outbreak occurred. Five men of the section became ill about the same time.

"A bacteriological examination of the blood, urine and feces of all the cooks and all the 'contacts' in the unit was made, with the result that one of the cooks (Pte. W) was found to be excreting typhoid bacilli in his feces in large numbers. When this man was segregated no other cases of enteric occurred in the unit, and the disease did not extend to other units.

"An epidemic of 12 cases of enteric fever at the Girls' Convent School, Poona, was traced to a Goanese cook who passed through an unrecognised attack of the disease, and at the same time continued to act as cook for the school until he became too ill to do his work.

"In epidemic cases, contact infection plays the most prominent part, and next in importance comes the contamination of food, drink, and milk supplies. Of these, milk is perhaps the most important, and water for drinking or domestic purposes in India is of secondary importance.

"When we recognise man as the source of infection it requires no great stretch of the imagination to picture to ourselves how the germs from the secretions of infected persons may gain an entrance by any of the channels mentioned to the intestinal tract of healthy persons." From facts such as these it is only reasonable to conclude that in India there are many persons acting as "Bacilli Carriers." (2) The Bacillus paratyphosus has a wider distribution in nature than the aforementioned, as in addition to being found in man, they are found in the tissues of lower animals and may thus be introduced into the human system by partaking of the flesh of an infected animal.

Flies may also account for many cases of typhoid. Bacilli having been found on the bodies and legs of flies, it is only reasonable to infer that after settling on the excreta or urine containing typhoid bacilli they are capable of transferring infection to food, water, milk, or utensils with which they come in contact soon afterward.

Man alone is susceptible to the typhoid virus which is short lived outside the human body. The susceptible party swallows the micro-organism in contaminated milk, food, or water, or it may be introduced by contaminated hands if one has been ministering to a typhoid patient, or come in contact with any of the excreta or soiled clothing. The bacilli thus enter the alimentary tract, they develop in the lymph glands of the intestinal walls, and are passed into the blood where they produce the constitutional symptoms of that particular blood poison consisting of a gradual rising of temperature reaching its maximum in about two weeks when it again gradually returns to normal. Swelling of the spleen, diarrhea, flatulence, rose coloured spots on abdomen, and a liability to certain complications as intestinal hemorrhage, perforation of the intestine by ulcers, abscess of liver, pneumonia, cystitis, disease of heart and blood vessels. The disease has an average duration of from three to four weeks; during all of this time the typhoid germs are being eliminated in the feces and urine. A single drop of urine may contain as many as 5,000,000 bacilli. Great care must therefore be exercised to disinfect or destroy these discharges, and protect them from flies so long as the typhoid germs are present lest the disease be spread to others.

Recovery from enteric fever does not always mean the destruction of all the germs in the body, as in a certain

proportion of cases the infection may continue to cultivate itself in the liver and urinary passages for weeks, months or years after recovery and is not infrequently responsible for abscess of the liver. Such persons become "Bacilli Carriers" and are a source of danger to all with whom they come in contact. Many cases of so called "simple continued fever" are in reality a light form of enteric; the individual not being ill enough to discontinue his vocation. Such persons are most dangerous and for this reason the discharges of all continued fever cases should be examined early for typhoid germs.

"When carriers are found, their condition should be explained to them, and they should be warned of the importance of cleanly habits. Disinfection of their excretions should be insisted on, and on no account should they be employed in the sale of food stuffs or have anything to do with the preparation or handling of food, milk, or drink supplies. In a word, they should be debarred from any kind of work which gives them opportunities for infecting other people.

"It is evident from these facts that any sound methods of prevention must take into account the sources from which the infection is derived, viz., the enteric fever patient, and the 'Bacillus carrier.'"

Methods of prevention which fail to take these sources into consideration can only end in failure and disappointment. This is the most important fact upon which to concentrate preventive measures."

Next month we shall consider the treatment of enteric fever.

Milk and Disease

Fannie Sprague Talbot

SINCE the days told of in Holy Writ, when the wealth of wondering tribes was vested in flocks and herds, milk has been considered one of the most important of foods. In every household it has been reckoned a necessity and used in greater or less quantities, not only as a beverage but as a component part of the culinary concoctions peculiar to the time and generation. Milk was thought healthful no matter what the climate or condition under which it was obtained. It remained for the scientists of the present era to discover that no food is so susceptible to contamination as milk, none so great a conveyor of disease.

The Slaughter of the Innocents! We do not have to go to our histories to learn thereof. Thousands of infants are put to death every year. One may read on the death certificates, "gastritis," "cholera infantum," "acute intestinal inflammation,"—it is milk that caused these disorders. A certain class of mothers cannot nurse their offspring. Another class will not. In consequence, nearly four-fifths of all babies. . . . are fed on cow's milk and statistics prove that one-sixth die before they are a year old.

Much of the milk sold in cities is adulterated. By "extending" his supply the gwala is able to satify his customer's demands for a liberal measure. Impure water is the most common adulterant, and to this source epidemics have frequently been traced. A poor quality of milk is often coloured by the addition of chalk and similar substances. Various chemicals, too, are used to prevent the souring of milk, the most common of these being formaldehyde, salicylic acid, boric acid, and

borax. While not regarded as poisons, if taken regularly in small doses, these substances cannot fail to have an injurious effect upon the system.

The first factor to be considered in the milk problem is the cow herself. The food she eats, the water she drinks, the treatment she receives and her physical condition directly affect her milk. She alone is responsible for milk known in its various conditions as blue, red, slimy, bitter, soapy and gargety. Cows fed on decaying silage, fermenting grains and distillery slop; cows that drink from stagnant pools covered with green slime, and from wells contaminated by sink drains and cesspools; cows kept in a state of nervous excitement and fear by brutal caretakers; blind cows, rheumatic cows, cows with broken legs, fallen hips, udders congested, inflamed and infested with pus-discharging abscesses—under all these conditions cows contribute their share of milk to the general supply. But the greatest menace to the public health is the tuberculous cow.

Dr. Schroeder in summing up his conclusions based on the facts he presents in his Bulletin, "Milk as a Carrier of Tuberculosis Infection," says: "It is a fact, a plain, experimentally demonstrated fact, that no one who uses raw milk extensively can reasonably hope to escape introducing many tubercle bacilli into his body. They are inevitably consumed in large quantities."

Dr. Woodhead, of the British Commission, says: "Every tuberculous cow is either an actual or a potential centre of infection. We cannot get rid of the great white plague until we take bacilli of bovine origin into consideration."

Dr. Latham, the great London physician, makes this statement: "There are signs that the public is at last waking up to the fact that the only real way of dealing with the tuberculosis question entails prevention of infection in milk."

Painstaking investigations show that foot-and-mouth disease, cowpox and anthrax are communicable through the medium of milk, and that diseases like garget, gastro-enteritis and septic fevers in the cow render her milk unsafe for human consumption. Danger lurks, too, in the milk of animals treated with strong medicine and those that have fed on poisonous plants in pasture.

The diphtheria epidemic in Sutton, England, in 1877, was traced to the milk supply. Latter-day physicians have become convinced that cholera, small-pox, measles and chicken-pox are likewise communicable.

There are many ways by which germs of these diseases may gain access to the milk. Infected water used in the cleansing of pails, cans and bottles may convey them. Scrub brushes, jharans, flies and infected air are other agencies. There may be illness among those who handle the milk, or in their families. Animals wading in filth and sewage-polluted water may infect the udder, and through it the milk.

Seventy per cent of the milk that reaches the city consumer shows a visible deposit of dirt which may be found on microscopic examination to comprise fecal matter. This dirt is characterized in the report of the United States Public Health and Marine Hospital Service as "fully as undesirable as pathogenic or disease-producing germs are dangerous.

The number of bacteria in milk depends on three factors: the number deposited from the cow's udder and from the air and utensils; the time during which they have developed; and the

temperature at which the milk has stood. Yet it is not always in execessive numbers of bacteria that lurks the greatest danger, for pathogenic germs may infest milk with a low count.

Milk seemingly rich in cream properties often shows in the test an abundance of pus organisms.

In this day of advanced civilization the health of a populace is considered its chief asset, and a monetary value is placed upon the life of each individual. A city which has a high death rate thus loses many lakhs of rupees each year in deaths, which are directly attributable to preventable diseases. Consequently, it behooves each municipality, from a commercial view-point, to insist upon the proper observance of sanitary precautions.

Perhaps the greatest hindrance to purifying the milk supply is the cost. All these sanitary measures entail added expense, and according to government estimates the producer, even he who makes no outlay, does not under the present schedule of prices realize enough to really pay him for his trouble. And the consumers are loath to pay advanced prices, even though such insure for them a better quality of milk.

So it would seem that despite the efforts of scientists and the passing and enforcements of laws affecting the purification of milk the real solution of the problem rests with the consumer himself. When he is educated to the point where he realizes that the purity of his food is of paramount importance in the maintenance of health we may be able to have conditions governing the production of milk idealized, and not till then.—*Good Health.*

RATIONAL TREATMENT IN THE HOME

Conducted by Dr. Ruth Merritt-Miller

Helpful Treatments for Small Children

THERE are two things which I would were indelibly impressed upon the mind of every mother; the danger of drugging children, and the advantage of attending at once to any unfavourable symptoms which may arise.

The writer is the mother of three healthy, hearty boys, born on the plains of India. The eldest is now about five years old, and none of them have ever taken a drop of medicine except one, to whom half a tablespoon of castor oil was given when he was a few days old. All three children have been partially fed with artificial foods, and have suffered more or less with colic during the first few months of their lives.

Colic is caused by gas in the stomach or bowels. If due to taking its food too rapidly, baby can often be quickly relieved by laying him upon his stomach and patting him. If the gas be due to improperly digested food, a little warm water should be given from the nursing bottle. If this does

not prove satisfactory a warm enema is almost sure to bring about the desired result.

Put about two quarts of water which has been boiled, and cooled to a temperature of 98-102 F., in an irrigator and elevate about two feet above the child which should be held in the lap with the hips well over the receptacle for the rejected matter. A small child does not retain the water, and the lap should therefore be well protected with either thick paper or a macintosh. Oil the anus and the nozzle of the irrigator. The nozzle should be as small as can be obtained. Allow water to run through the tube until any cold water or air contained in it is expelled, then compress the tube and insert the nozzle slowly and carefully into the rectum. If proper care be taken baby will be neither hurt or frightened. If the water is ejected at once, all of the two quarts may be given before the nozzle is withdrawn, but the amount taken and expelled should be carefully watched, and if the water is not promptly passed off, the flow should be stopped and the abdomen gently kneaded. A child two years old or even younger can be taught to retain a small quantity of water for a time, but one injection is seldom sufficient, and the treatment should be repeated until the bowels are thoroughly cleansed.

In this country where dysentery is so prevalent, and often fatal, no one should neglect the slightest digestive disturbance for a day, and perhaps I should say for even an hour. My boys are all fond of playing with water, and as a result are sometimes chilled, and threatened with dysentery especially during the teething period, but a warm enema, given as soon as unfavourable symptoms appear usually proves an efficient remedy. If not, I repeat the enema, and follow it by an injection of a half cup of boiled starch, which should be just thin enough to run through the tube.

Fomentations to the abdomen give great relief if the little one is suffering pain in the stomach or bowels, but great care should be taken not to give them too hot, as a child will not endure as much heat as an older person.

The heating compress carefully applied to the abdomen is a very efficacious treatment for irritation of the bowels.

The warm bath is another very useful treatment in colds of the head and chest, and in fevers due to indigestion which are so common in young children. This treatment should always be preceded by a warm enema. Prepare a tub of warm water the temperature of which should be about 100° F. Place the child in this and wrap a blanket about it. . . Gradually add hot water until the bath reaches a temperature of about 105°F. Keep the water at this temperature until perspiration is induced. Keep the head cool either by sponging it, or using a cold wet compress. When the child begins to perspire freely, lift it from the tub, wrap quickly in a towel and cover it snuggly with blankets. Hold the child in the lap for a few minutes or, if quiet, it may be laid on a bed. In fifteen or twenty minutes after removing the child from the bath, it should be sponged with cool water, dried thoroughly, and oiled with vaseline or a little mustard oil. The clothing should then be put on, and the child kept quiet for some time before allowing it to run about. Care should be taken to avoid any drafts during the treatment, and that only a small portion of the body be exposed at one time during the sponge bath.

In the Place of Meat

Macaroni with Egg

1 cupful broken macaroni (not cooked),
½ cupful milk,
2 eggs,
1 teaspoonful butter,
½ teaspoonful salt.

Break the macaroni in one inch lengths; drop in boiling water to which has been added a little salt. Boil one half hour, turn into a colander and drain. Turn into a baking pan. Pour the milk over the macaroni to which has been added the eggs, butter and salt. Bake until set and brown.

Dhal Fritters

1 cupful dhal,
¼ cupful rich milk,
2 eggs,
1 tablespoonful butter,
½ cupful flour.

Cook the dhal until tender and dry, press through the colander, add milk, beaten yolks, butter, flour, and salt. Mix thoroughly and add the stiffly beaten whites.

Thoroughly oil and heat an iron griddle and drop the mixture in spoonfuls on it. Brown on both sides. Garnish with parsley and serve at once.

Bean Croquettes

1 cupful haricot beans,
2 tablespoonfuls olive oil,
1 teaspoonful salt,
2 eggs
1 onion (browned),
bread crumbs.

Cleanse the beans in warm water, soak over night, drain, and put on to cook in cold water until tender. Drain and press through a colander, add the salt, olive oil, one beaten egg and browned onion. Make into croquettes; dip into the beaten egg and roll in bread crumbs. Brown and serve with tomato sauce.

Cream Tomato Sauce

1 cupful strained tomato,
2 tablespoonfuls olive oil,
2 cupfuls flour,
1 cupful milk,
½ teaspoonful salt.

Heat the olive oil and add the flour, cook until well blended. Add the boiling milk slowly, stirring constantly. Cook for five minutes, and add the salt. Just before serving add the tomato juice that has been boiling for ten minutes.

Bringal Roast

4 medium sized bringal,
3 eggs,
¼ teaspoonful sage,
1 small onion,
½ cupful dried breadcrumbs,
½ cupful cream or three tablespoonfuls olive oil.

Peel the bringals and slice; cook in a small quantity of boiling water to which has been aded a little salt. When tender, drain and place on layer in a baking tin, spread over this the bread crumbs mixed with the minced hard boiled eggs, sage, and minced onion, and salt to taste. Add another layer of bringal and sprinkle bread crumbs over the top. Pour over this the olive oil and bake for twenty minutes, and brown nicely.

Frizzled Protose

½ pound protose,
4 eggs,
½ teaspoonful salt,
1 tablespoonful olive oil.

Cut the protose in thin strips and put into a hot pan, oiled with olive oil. Pour over this the slightly beaten eggs and stir constantly until all is nicely browned. Serve on slices of hot toast.

MRS. M. P. M.

The Home

Figures Will Not Lie

"To-morrow is the 24th, isn't it, Mary?"

"The 24th," answered the young wife, sadly.

James Carrol knocked the ashes from his cigar, held it carefully between the thumb and forefinger of his left hand, and looked thoughtfully into the fire. Mary's tired fingers showed no signs of weariness, but turned the hem of a sheet mechanically, then proceeded to baste it for sewing.

"Belle will be three years old?" he said, interrogatively.

"Three, James," replied Mary, without the trace of a bright smile lighting up her pretty, young face. James gave a few more whiffs at his nearly consumed cigar, but did not seem to enjoy it much. A listener would have pronounced Mary a cold, unloving wife, whom the genial presence of her handsome husband, or the return of her baby's birthday, failed to please.

Lookers and listeners do not always look into the depths of the heart to see what trials and struggles are there. So in this instance. Another woman whose life is all sunshine would have pronounced Mary Carrol heartless. Poor thing! She had too much heart for this world's trials. Her wedding-day was a blissful one; her husband, the ideal of manly perfection. His love, unaccompanied by wealth, was more to her than all the treasures of the earth. But a cloud arose to dim the brightness of her sky. She soon made the discovery that her husband was human; that the love of wine, and possibly something stronger, filled his heart, as well as the love of his wife. He was not what the world calls an intemperate man—one glass a day does not constitute a drunkard; why should she fear?

At the end of three years he took at least two glasses a day; what had she to hope for in the years to come?

"I wish, Mary, I were able to make Belle a present every birthday in her life; but you know it is all I can do to get along as it is."

"I know it, James," meekly replied the wife.

James was ill at ease. Something in Mary's manner disturbed him.

"What makes you so solemn and quiet, Mary? Why not sympathize with me, and say you know I have a hard time to get along, and that Belle can do without presents better than we can afford to make them? Fox gave me the wood bill this morning, and Jones wants to know when the grocery bill will be paid. I don't like to bother you with these things, only I want you to understand that, as much as I love our little girl, I can't afford to make her presents."

Mary's colour came and went. Tears stole into her violet eyes, and her heart beat quick and fast. Her trembling fingers guided her needle unsteadily, and her stitches

were long and irregular. Three long years she had brooded over her husband's weakness, without a word of reproof; and much as she dreaded to speak, she knew that her time had come.

"I wish, dear James, I could economize in something, and save money to buy our darling a present. It seems cruel to neglect her birthday so soon."

"I know of nothing you could be more prudent in, Mary, and you know I am as economical as possible, don't you?"

It was very hard for the lips that had uttered only loving words of praise to say No, but a strength not her own came to her aid, and with a sweet, sad smile, the wife uttered her first rebuke:

"No, James, I am grieved to say that I feel that in some things you are too extravagant. It must be a sin of ignorance; for I know, if you realized it, you would never wrong your wife and child."

James started from his seat. His eyes flashed, and his cheek paled. "For Heaven's sake, Mary, are you crazy?"

"Not crazy, James, but too clear-headed for our happiness." After the shock had passed, and he was prepared to listen, she went on and in a clear, concise manner laid before him the cause of her bitter words:

"During the last year you have drank at least two glasses of liquor a day, haven't you?"

"Why, yes, I suppose so. What of that? only ten cents a glass; that can not ruin a man."

"Three hundred and sixty-five days, which multiplied by twenty cents, amounts to seventy-three dollars. Three cigars a day, which you know is below your average of smoking, will amount to as much more, which makes one hundred and forty-six dollars. Fifty dollars would pay our coal and grocery bills now due, and leave a balance of ninety-six dollars for baby, you, and me. You know, too, that the the time spent in drinking and smoking is worse than wasted; for tobacco and liquor poison the system, destroy the health, soften the brain, weaken the nerves, and bring ruin to thousands of happy homes. There is a lack of tenderness in your tones to Belle and me when your nerves are excited by drink. I forgive you freely, but the sting is left in my heart."

Mary's effort overcame her, and she burst into a passionate fit of weeping.

The strong man trembled. "Am I blind? Is it possible I have wronged my dearest treasures?"

They mingled their tears, and talked till a late hour, laying plans for the future; and James begged forgiveness of her he had wronged.

"It is not too late to prove my love and strength," said the penitent man.

And so it proved. In one year from that day, two beautiful silver cups were brought home by the happy father, one for Belle's fourth birthday, the other for the wife who had saved him. Mary's bore the inscription, "An angel saw me falling, and lifted me up." Belle's was also neatly engraved: "A little child shall lead them."

Years have passed; and the happy couple in the vigour of life, on each recurring birthday of Belle, who is now a young lady, relate to her the little trials of their early married life, and the great happiness that has grown from self-denial and justice.

The good wife and mother has kept the silver bright, and at every meal these cups are on the table where James can be reminded of the promises he made and has so faithfully kept.—*Lyceum Banner.*

Physical Culture---What It Is

Herbert M. Lome

A PHYSIOLOGICAL authority of European reputation asserts that any position which tends to mar the natural equilibrium of any part of the body will, if persisted in, result in the upsetting of the equilibrium of all parts and organs, which is equivalent to saying that ill health is bound to follow. . . .

The science of Physical Culture, then, may be defined as the application of exercise, diet, bathing, ventilation, and other hygienic observances, to the physical needs of the individual.

Take a bookkeeper, for instance. His vocation leads him to bend forward over his desk for many hours of the day; to use only the muscles that enable him to so bend; to contract his chest, thus bringing about semiatrophy of the forward muscles of the throat, and interfering with the work of the organs of digestion.

Obviously, then, the only thing to do is to exercise these neglected muscles. At the same time the patient should take appropriate breathing exercises. His digestive apparatus will be all the better for a little intelligent dieting, and he should determine to adopt other physical culture habits that will offset the conditions of his daily toil. If he will persevere in this well-doing, he will assuredly reap the benefit thereof. But it must always be remembered that the effects of years of harmful habits can hardly be overcome in two weeks or in one month. Physical culture is not a work of sudden miracles. It rewards only those who faithfully put its principles into practice, believing that the reward is certain, although it may be deferred.

That which applies to the bookkeeper, also applies to thousands of others who suffer by reason of the abnormal conditions thrust upon them by their daily occupations.

Comparatively few persons are possessed of the health which nature intended should be theirs. There is a large distinction between the abounding vitality which is man's normal endowment, and the so-called health of the average individual. In the latter instance, he may be able to discharge the duties of existence in a fairly thorough manner, and yet know but little of that joy of life which comes from a physique every part of which is fit. The "quick lunch," the lack of ventilation in homes and offices or stores, the failure to take sufficient exercise of the proper kind, which are the besetting physical sins of our modern civilization, lead to the lowering of the vitality far beyond its natural limits. It is in regard to these and similar matters that physical culture acts in an educative sense, calling attention to the dangers of such a condition, and suggesting the remedies. And as such remedies are within the reach of everybody who has a desire to take advantage of them, therein lies its simplicity and value.

The every-day troubles of the body are due, for the most part, to conditions incidental to civilization. Thus we have the round shoulders, the flabby, fleshy waist, constipation, interference with the action of the kidneys and the lungs, a sluggish liver, and indigestion.

In the case of the waist-line which is of an abnormal size, usually produced by a sedentary occupation, which includes much use of the chair

or office stool, allied with a diet that makes for adipose tissue or fat. Apart from the unsightliness of an abnormal abdominal development, it leads to a number of disorders of a more or less dangerous nature. Exercise and proper food are the only remedies.

It is hardly necessary to state that constipation is one of the most common affections, as well as one of the most harmful. The retention of effete and poisonous matter in the body is productive of maladies which destroy comfort and breed trouble. Fifty per cent. of all diseases, I believe, have their beginning in the sluggish action of the bowels, such belief being based on the experiences of certain medical authorities with whom I have discussed the matter, and my own observations. There is not wanting evidence that appendicitis is, in the majority of cases, the direct outcome of a continued state of constipation. Improper diet and a lack of exercise are the primary causes of this affliction.

Trouble with the kidneys is another frequent accompaniment of our daily lives. Here again, the position assumed during office hours, the alcoholic beverages that form a part of the diet of the multitude, and the total lack of exercise that characterizes the habits of most people, are to blame.

Indigestion and sluggish liver are the direct results of an unsuitable diet and failure to exercise.—*Life and Health.*

Alcohol as a Remedy

THE laboratory researches conducted by the aid of instruments of precision, the same sort of instruments which measure the velocity of light, the movements of the stars, and by which the occult forces of nature have been revealed and studied—these same methods and instruments have been brought to bear upon the study of alcohol and its effects upon the human body, and the result has completely upset and reversed the old beliefs and the old teachings.

Here are a few of the things which science has demonstrated that alcohol does to the body: in doses so small as one twenty-five-hundredths of the body weight—that is, one ounce for a man weighing 150 pounds—alcohol shrivels the nerve cells and impairs every mental function. In a normal man, the nerve impulses travel at the rate of ninety-one feet per second; under the influence of alcohol the rate of transmission is reduced to thirteen feet per second, or one-seventh; in other words, it takes a man under the influence of alcohol seven times as long to hear, to feel, to smell, to taste, to see, to think, as a normal man.

By similar careful measurements, it has been found that under the influence of alcohol the fires of the body burn low, the amount of oxygen consumed is less, and the tissue activities are slow.

Thus, it appears that alcohol is not a stimulant or a tonic in any sense of the word. It is a depressing agent, an anesthetic, a narcotic; it is the mother of anesthetics.

The old idea that alcohol strengthens the heart, and that hence it is just the thing to use in case of fainting, shock or collapse, has been shown to be utterly fallacious. It was formerly supposed that alcohol aids digestion because when taken into the stomach it causes it to pour out gastric juice. But Radzikowski, a Russian physiolo-

gist, has shown that the gastric juice produced by alcohol contains no pepsin; it is produced simply as an action of defence to dilute the poisons to which the living tissues are exposed. Alcohol was formerly considered a sovereign remedy for consumption because a few suffering from this disease took whisky and recovered in spite of it. Now, no one thinks of giving alcohol in this disease, for it has been positively proved that habitual drinkers suffer more frequently and more fatally from tuberculosis of the lungs than do abstainers. Consumptives are treated by the out-of-door method and sixty per cent recover. Pneumonia, under the alcoholic method, was still more fatal. Under rational treatment without alcohol the mortality has been reduced to five or six per cent.

An increasing number of intelligent physicians are taking a decided stand against the use of alcohol as a remedy. It has even been proposed that alcohol should be dropped from the materia medica. It may almost be said that alcohol as a remedy is dead. The corpse still lingers about the drug stores and in some physician's offices, but the time cannot be far distant when this drug will be decently buried and cease to appear among remedies which are accorded respectable standing as having the support of scientific authority.—*Selected.*

Methods of Treating Snake Bite

In practice, the treatment of snake bite should aim (1) to prevent the absorption of the poison, (2) to neutralize the effects of venom already absorbed, (3) to maintain the patient's general vitality.

To prevent the absorption of poison immediately apply one or more ligatures a short distance between the bite and the heart; i. e., on the side of the bite nearest the heart. The ligature, which may consist of a handkerchief, shoestring, necktie, or any other suitable bandage, should be tightly twisted about the limb so as to prevent the return of the poison laden blood to the rest of the body. Some physicians employ a series of ligatures at varying distances above the bite. The tissues around the joint should be squeezed in order to expel at least a part of the venom contained in the punctures. The fang punctures should be enlarged by cutting into them at least as deep as the fangs have penetrated. Two cuts crossing each other should be made over each puncture, thus starting the escape of poisonous blood. The blood should be sucked away from the wound provided the one who does the sucking has no wounds or abrasions about the mouth or lips. If water is obtainable, the wound should be thoroughly bathed as quickly as possible, first with water, then with a solution prepared by adding permanganate of potash crystals to water until a deep wine colour is produced.

To neutralize the venom, the contents of a bottle of antivenene (about the third of an ounce) should be injected under the skin, preferably the skin of the abdomen, by a hypodermic needle. There are instances reported by physicians where the use of antivenene thus employed has saved the lives of persons bitten fifteen or twenty hours before the application, and in so severe a state of collapse that recovery seemed impossible.

If antivenene is not obtainable, rub pure permanganate of potash crystals into the wound, and if a hypodermic needle is available inject a strong solu-

tion of potassium permanganate deep into the tissues in a ring surrounding the punctures and apply over the wound a dressing saturated with this same solution. The edge of the dressing should be raised every half hour and fresh solution poured over the wound. In experiments in the laboratory potassium permanganate crystals are found to neutralize their own weight of snake venom.

To maintain the patient's general vitality, he should be surrounded with hot water bottles, hot bricks, and warm blankets, and hot drinks should be given. If the patient is too weak to swallow hot liquids, they may be injected into the rectum. When there is great stupor or numbness, it is advised that the patient should be made to exercise, or if too feeble to exercise, the limbs may be rubbed. The drinking of considerable quantities of liquid to stimulate the kidneys and the use of hot water baths have also been recommended. Alternate applications of heat and cold compresses to the spine are stimulating measures of great value. The alternating hot and cold wet sheet rub is also efficient as a stimulant.

It is needless to state that the services of a physician should be secured at the earliest possible moment. If this is impossible, then take every precaution to keep the wound absolutely clean. Lift the edges of the dressing to renew the application of permanganate solution every half hour. Small bits of sterile gauze should be tucked into the wounds to keep them open, and, no matter how favourably the case progresses, do not allow the wounds to heal in less than a week.

Whisky is popularly considered a specific antidote for snake bite. In fact, this popular prejudice in favour of whisky for snake poisoning is almost universal. Numerous experiments, however, supplemented by careful clinical observation, have shown conclusively that whisky is positively harmful in place of being beneficial.—*J. T. Case, M. D. in Good Health.*

Psychotherapy

MENTAL therapeutics is assuming an important place in the treatment of disease. The following paragraphs from an article in "American Medicine" by Doctor Harrington will give some idea of the principles involved. The Doctor says:

The profession has been so interested in morbid anatomy and surgery during the last score of years that it has neglected some less remunerative fields of practise.

Old traditions and philosophical speculations must be cast aside and the mind must be studied as a function of the living brain.

The essential principles of psychotherapy may be briefly stated. The mind tends to translate into physical reaction any suggestion or idea which can be actively aroused and kept at the focus of attention; the idea must seem possible and reasonable. All opposing ideas must be completely inhibited and the mind must be made to give the idea free play. The appeal must often be made not so much to the rational mind or the reasoning faculties as to those deeper and more fundamental psychic activities rooted in the instincts, feelings, habits, and hereditary tendencies that are more far reaching in their effects

(*Concluded on Page Seventeen.*)

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MUSSOORIE SANITARIUM—CAMEL'S BACK

PSYCHOTHERAPY

(*Concluded from Page* 15)

than anything in the rational mind.

According to Professor James the will is the ordinary and normal opener-up of those deeper mental levels. The will is often weak and some uuusual stimulus is necessary. War is given as an extreme example of such stimulus; it shows what men and women can do. Religion is equally powerful and gives remarkable examples of the liberation of energy in the individual and in the masses.

There is some line along which every individual tends to be aroused by the power of ideas. The secret of success is in finding this line of ideas for the patient before us. Be the stimulus what it may, the old troubles cease to vex, the old pains fly away, the individual shows good cheer, good temper, a firmer and more elastic moral tone, a life having new qualities, new freedom, enlarged powers.

There are said to be many parallels in the action of the body and that of the mind. For example, every brain centre that sends out motor impulses sends out inhibitory impulses at the same time to the antagonistic motor apparatus; a centre that sends out motor impulses to the flexor muscles sends at the same time inhibitory impulses to the opposing extensor muscles.

In the same way an intellectual centre that gives origin to one line of ideas inhibits the development of a line of antagonistic ideas, or, as Munsterberg puts it, opposing ideas may be assumed to flow from the intellectual centres over two different paths; while the one pathway is active the other remains closed.

I have emphasised these two things, the inhibition of one group of ideas by an opposing group and the stores of slumbering mental energy possessed by all normal individuals, because they are the two things with which we must operate in psychotherapy. Giving drugs or the use of electricity may do good or harm to the sick depending upon how and for what they are used.

Even so simple a remedy as psychotherapy may do harm instead of good if not properly applied. But the real danger appears when, as is so frequently the case with Christian Science, the symptoms of serious disease are ignorantly over-looked until it is too late to apply rational methods of treatment.

We of the medical profession must and do recognise the power of ideas in the treatment of disease; the profession has always done so, but as I have stated, it has not always given it the attention that it deserves.—*Literary Digest.*

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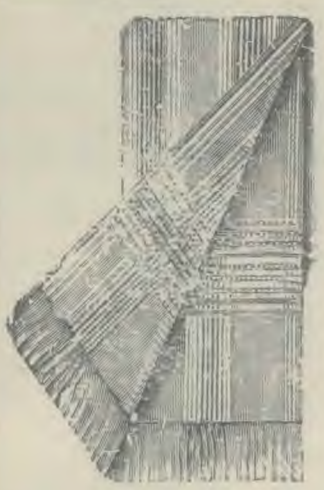

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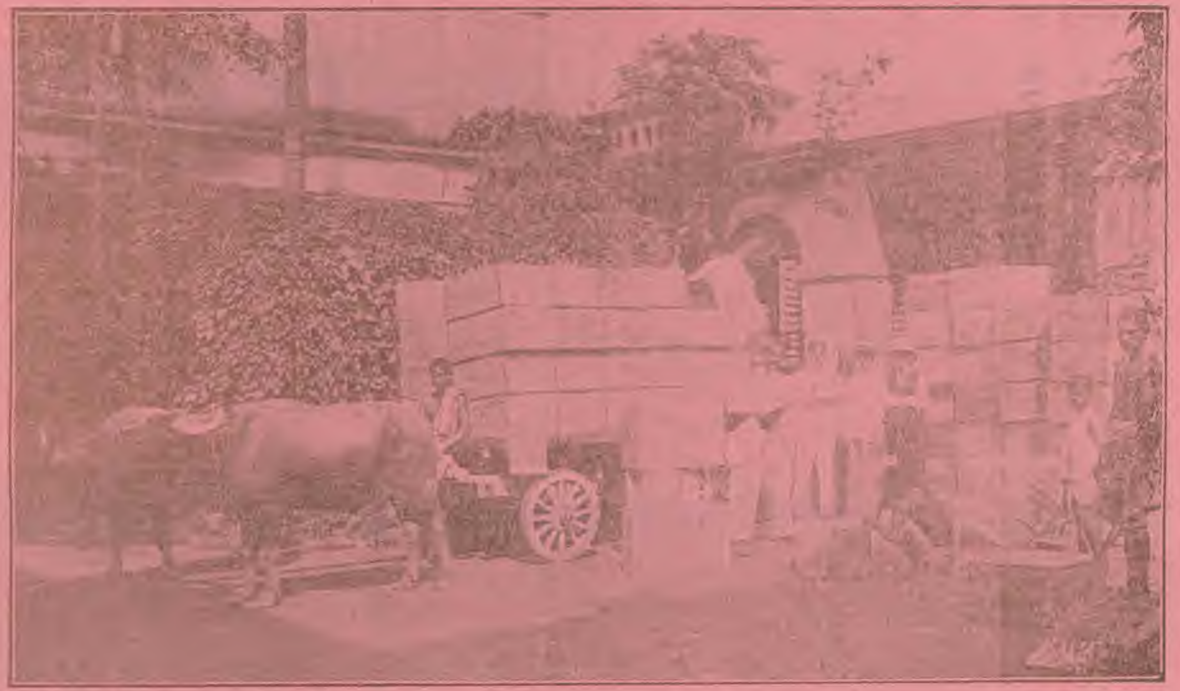

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