

Herald of Health

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Vol. 3.

MARCH, 1912

No. 3

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Lucknow, March, 1912

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Prevention or Cure, Which?

WE are living in an age of advancement which is calling forth from great minds material that has marked this period of scientific knowledge as the greatest that the world has known. There is no part of this scientific knowledge which has made more wonderful improvement, or delved deeper into the unknown of but a few years since than scientific medicine. The men who have made this possible have been self-sacrificing; they have devoted their lives and shortened their careers in bringing to light some hidden fact of inestimable value to their fellow-men. When we consider what men like Lister, Pasteur, Ehrlich, and many others have done to relieve suffering humanity, we can but feel the incentive that these lives give us, realize the immortality of such names.

As Cannon in "Science" states, "The responsibility resting upon such men is great." The very soul of research is strict honesty. The investigator should work clearly and accurately with an eye single to the truth. He has to consider not only the observations which fit his theory, but others as well. The erratic cases invariably make trouble, but they are often disguised blessings. They may be indeed of far greater moment than those which have been anticipated, for they may point the way to entirely unsuspected facts. After the investigator has completed his examination of a group of questions which have interested him, his leading idea, his texts, and his results must be described with scrupulous exactness. In thus reporting his work he

should strive to be like clear crystal, receiving the light and transmitting it, untinted by any trace of colour." So the life of the investigator is not always enviable. It is midst doubting Thomases and severe criticism that he conducts his work, pursuing the even tenor of his way until his work is eventually crowned with victory.

The great master minds of medical and surgical advancement have been working along the lines of preventive medicine. They realized that more could be accomplished for the good of humanity in enlightening people for the purpose of preventing disease, than by curing abnormal conditions after disease has gained entrance to the body. This great and noble work really had its beginning in the time of Lister, who with Pastuer applied antiseptics as an inhibition upon the growth of micro-organisms. This resulted in not only stopping the growth of disease germs, but it called out a more careful search for those diseases that might be attributed to an infectious organ together with a study of the means for preventing them. This has made possible to the physician the control of diseases such as diphtheria, small pox, typhoid fever, and cerebro-spinal meningitis, which heretofore have slain their thousands.

Nature has endowed the human system with certain inherent qualities for the prevention of disease. For this reason not more than one in five take an infectious disease although we may have been exposed to it. Our bodies are a very unwelcome place to a great many disease germs so

that we never feel the effects of germs which gain entrance to the system by means of the mouth, the digestive tract, and the respiratory system, the usual avenues of entrance. In the former they have to meet the different digestive juices of the stomach and the intestines, while in the latter they come in contact with the antagonistic action of the mucous membrane of the nose, throat and bronchial tubes. If, however, they succeed in running the gauntlet of these natural agencies, they must still deal with the blood where the leucocytes, or white cells either eat them up or surround them with their feelers. If the little enemies escape all this, their toxins or poisons are neutralized by antibodies that are manufactured by the tissue cells of the body. Dr. Woods Hutchinson in *Hampton's Magazine* wittily yet aptly describes the above science in the following words: "The entrance of the disease germs starts the body cells to pouring out more of these antibodies as surely as the intrusion of a strange cat into a quarrel gets all the resident felines to bustling and spitting, and almost as mechanically as the bark of a pine tree pours out protective gum when bruised. If the body cells can 'do it first,' and hurry enough troops to the front, then the invaders are overwhelmed by the antibodies and either killed or eaten on the spot, Fiji Island fashion, or handcuffed and thrown into jail, or swiftly deprived of their weapons, and set at liberty under bonds to keep the peace." So we can see that these little enemies have a difficult task in taking firm root upon the system, and for this reason although disease is so prevalent around us we do not become infected.

Again there are some of us who are born with what we call an natural immunity for a certain disease as some people will not take measles, scarlet fever, etc., having been born with sufficient antibodies in

their systems to ward off, or overpower the germs that are the cause of these diseases.

It is the warfare that is waged between the natural defences of the body and disease which cause what we call symptoms. These are the signal stations, or outposts. They tell the physician what is taking place within the body, and show that the system is doing all in its power to gain a victory in the conflict. On the present methods of the treatment of disease, the medical man relates himself differently to the various symptoms as of fever, cough, and diarrhea. The tendency was once to check all signs of disease, but it having been recognized that they are a means of combating the trouble they are left untouched unless they become so severe as to be exhausting to the patient. A cough for example, shows that there is something in the lungs that ought to be expelled.

Diarrhea, or looseness of the bowels, tells the tale of a foreign invader in the intestines which take this means of cleansing themselves of the intruder. Fever indicates that more of those little antibodies previously mentioned are being manufactured and are doing their part in checking the inroads made upon the system, so we do not try to reduce the temperature unless it gets above 102°, when it would be considered harmful to the tissues of the body. If we were too ready to annihilate these danger signals, oftimes we would be working in direct opposition to nature. This we must avoid as we must work hand in hand with nature's laws so that we may prevent or cure disease. In another article we will take up some of the results of preventative medicine, and how they are being accomplished.

THE children of alcoholic parents are usually found to be stunted in growth, deficient in weight, suffering markedly from anæmia, and in many instances infested by vermin.—*Mrs. Scharlieb, M. D.*



General Articles



Sane and Scientific Eating

DAVID PAULSON, M. D.

THE entire problem of the feeding of the living machine has always been most interesting to me,—I might say almost fascinating. And the more study I have given this subject the more I have seen in it.

The human body may be properly called a living machine, for it acts in harmony with mechanical principles. Contrary to our old-fashioned notion, it neither creates energy nor manufactures material at all. It simply uses and transforms what is taken into it. Neither does the steam-boiler manufacture energy. It only liberates from the coal what the sun stored up in it generations ago. Likewise the human body only sets free the energy that already exists in the food.

The Human Furnace

The food eaten is the fuel for the human boiler. We take the food into the stomach; and the draught of air that consumes it is received in the through the lungs, and meets the digested fuel in the blood, tissues, and muscles, and there oxidizes, or burns it up, developing both heat and energy. Whether you burn a pound of corn flakes in a stove, or fully digest it in your stomach, it will yield up exactly the same amount of heat or energy in either case.

To that extent the human body is an exact machine. But one great point of difference is that the human machine can keep on repairing itself year after year, while the automobile must be sent to the repair-shop. The principal reason why the human machine ever gets out of repair, is that it frequently has such reck-

less drivers. The average mortal tears down his physical machine more rapidly than it has capacity for repairing itself.

Dietetic Clinkers

Every furnace has a suitable provision for the removal of its ashes or waste products; and it is an equally important function of the human machine to eliminate its own wastes. In fact it is nearly as necessary for the human body to rid itself of its wastes as it is for it to be fed.

When waste matters accumulate in the stove, we say the ashes smother the fire, or that clinkers are accumulating. In the human body the same things may spell rheumatism, nervous prostration, or Bright's disease. Such diseases simply mean the failure of the human body to rid itself of its own waste products. The scientific engineer studies these problems, and avoids the coal that has a tendency to form clinkers. But that same engineer perhaps never stops to think how much heat his food will furnish him, and whether or not it will fill his system with clinkers. More than likely he is perfectly satisfied if it only will tickle his palate while he is eating it.

But we are making progress. There is coming to be such a thing as sane and scientific eating; and it is certainly high time, for science has invaded almost every other realm of human activity.

Heat- and Energy-producing Fuel

Starch, sugar, and fat are the fuel that is used in the human machine to furnish the heat that the body is giving off all the time, as well as that for the work it is called upon to perform. Every time I

move my arm, I expend some energy that was originally stored in the starch, sugar, or fat that I ate yesterday or at a more remote date.

The ordinary boiler is constantly deteriorating and rusting out, and so must ultimately be taken to the junk heap. But in the human body, hand in hand with a similar destructive work, there goes an equal constructive work. You who read these words have been almost entirely rebuilt within the last six months, except your bones and your teeth. Every day we take in with our meals a few ounces of proteine, which the body uses as repair material.

Suppose every time the fireman threw in nine shovelfuls of coal he had to throw in a shovelful of iron filings to repair the boiler,—that would illustrate precisely what we are constantly doing. Ninetenths of our meal consists of starch, sugar, and fat, which are burned up in the body to make heat and work. One-tenth of the meal should be proteine, or albumen, as it was formerly called, which the body uses for its own repairs.

In other words, the human body charges this ten per cent. of commission, and the payment *must be* made in proteine; but it also resents the tender of a higher rate than this, for it simply has to work overtime ridding itself of this excess. Recent scientific investigations are revealing the fact that the majority of our so-called modern disorders result from eating too *much* of this repair material; hence it becomes a vital question to know approximately what constitutes a balanced bill of fare.

The Backbone of a Meal

The various foods made from wheat, corn, oats, rice, etc., form the substantial portion of a well-balanced dietary. They are largely composed of starch. When digested this is changed to sugar. No one needs to worry about the sugar trust.

Each one of us has a sugar-mill inside of him.

More than one-half of every loaf of bread is starch. In addition, nature has slipped into all the cereals about one-tenth of repair material. Thus ten per cent. of every slice of bread is gluten, which is proteine; and the body uses this to repair its muscles, nerves, blood, and even the most important part of the brain.

The grain family is deficient in fat. Most people seem to have discovered that instinctively, for they butter the slice of bread. From the standpoint of bodily requirements it makes but little difference whether this fat is in the form of butter, or cream, or olive-oil, or any other vegetable fat.

Fruits and Vegetables the Dietetic Storehouse for Mineral Salts

The cereal family is also short on some mineral salts. Hence the person who desires to have a well-balanced dietary not only adds fat to the dietetic foundation that is made of grains, but he also adds some foods that are rich in mineral salts. These salts are so important for human health that the wheels of life absolutely refuse to go unless they are reasonably supplied with mineral salts. In some way they seem to grease the wheels of life.

Vegetables and green garden products contain only a small amount of starch, about five per cent. on an average. More than four-fifths of their bulk is water and cellulose, or woody matter. But they are particularly rich in iron, which the body is compelled to have in order to make blood. They are rich in phosphorus, which the body uses to build up the nervous system. They contain lime, which is needed in the bones; and potash salts, which the body uses in making blood and other bodily fluids.

Fruits contain about as much digested starch or sugar as the vegetable contains

starch. Outside of potatoes, which contain nearly twenty per cent. of starch, one could hardly afford to spend his time eating either fruit or vegetables merely to get nourishment, for he would have to eat almost a bushel basketful of cabbage salad, or a small bale of lettuce, in order to secure nourishment enough for a meal; and the same may be said of most of the fruits.

There is more water in a pound of strawberries than there is in a pound of milk. But because of the great importance of the mineral salts that nature has stored away in fruits and vegetables, they should form part of the daily dietary.

By way of repetition: Make the grain or cereal food products the *centerpiece* in your dietary. Then, because they are naturely deficient in fats, add cream, dairy butter, olive-oil, ripe olives, or some of the vegetable oils, to make good this deficiency. As the cereals are also short of some of the necessary mineral salts, add fruits and vegetables, not neglecting those that can be eaten raw, such as lettuce, celery, chopped cabbage, etc.

Milk and Eggs

Milk contains about four per cent. proteine,—the curd; about four per cent. of fat; four or five per cent. of sugar; and about one per cent. of mineral, largely lime. The other eighty-seven per cent. is water; and after it has passed through the hands of some milkmen, it may even contain a larger amount of water. When milk is used in moderation the additional proteine will only serve to balance up the deficiency of proteine in the fruits or vegetables. In fact, fresh cottage cheese is particularly valuable for patients who are suffering from auto-intoxication, as it does not decompose in the alimentary canal as readily as some other proteins.

Nearly three-fourths of the egg is water. Fifteen per cent. of it is proteine, and ten

per cent. is fat. Thus it is comparatively a high proteid food, and, as is well known, decomposes easily. Hence those who are already suffering from autointoxication should avoid eggs. It is probably well even for persons in health not to eat more than one a day. The yolk contains the larger amount of fat and the less amount of albumin, and for this reason is probably the more wholesome part.

A Natural Meat Substitute

Nuts are the most nutritious food that God has made. Every pound of peanuts contains more meat than a pound of beefsteak. Every pound of peanuts contains one-fourth its weight in proteine, which is more than there is in a pound of meat. In addition they contain nearly half their weight in fat. Walnuts contain sixty-three per cent. of fat and sixteen per cent. of proteine. Pine nuts are very rich in both fats and proteine, and have the additional advantage that they are easily masticated. They are perhaps the most valuable nuts on the market, although they are as yet comparatively unknown.

From what has already been written, it must be plain that there is no great necessity for adding any large quantity of nuts to the ordinary bill of fare. It is well-balanced without them. Those who eat them to excess are certain to fill their system with an excess of building material, just the same as if they were using flesh foods. But nuts have these advantages over meat: they do not contain the ordinary waste products of meat, and there is no danger of contracting tapeworm or trichina or tuberculosis from eating them. So if one wants to add beefsteak to an ordinary, well balanced dietary, it would be better to take it in the form of nut products than from animals.

Eating Clinkers

He who adds meat liberally to the daily all-around dietary, is certain to overtax his eliminating organs in carrying off

the resulting waste products. That is why the doctor always tells a patient that is suffering from Bright's disease that he must cut out meat. That is the first thing the doctor says to the man that has rheumatism or an attack of fever. I advise the same thing, only I recommend it a few years before the man is likely to have these diseases. If it is a good thing to lock the door *after* a horse is stolen, it is better to do it before.

The man that is doing the hardest kind

of physical work will not suffer so severely from an excess of proteine food. His system is better able to eliminate the excess of waste products. But the sedentary man—he who is earning his bread by the sweat of his brains rather than by the sweat of his brow—will do well to investigate for a reasonable length of time the merits of a low proteine dietary. He will soon observe a clearness of brain and an increase of physical endurance that will be gratifying to him.

The Opium and Morphin Vice

D. H. KRESS, M. D.

NEXT to cocain, opium and its derivatives are classed among the most dangerous drugs. For many years England maintained the opium traffic in India and China. With her it was a matter of pounds and pence. The frightful ravages wrought among the people of China finally led to the famous antiopium decree of Sept. 20, 1906, the purpose of which was to eradicate this evil. The Chinese government was determined that the sale of the drug should cease, even though it was deriving an annual revenue from the drug of over thirty million dollars. At present in many a province not a poppyseed sprouts from one year to another. Ninety-five per cent of the officials who were formerly opium-smokers have quit the use of opium, while the other five per cent are forced to indulge in secret, for fear of losing their office.

The use of this drug is not confined to China. It has found its way into all civilized lands, and is at present as freely used per capita in the United States as it is in China, with the same sad results. Over four hundred thousand pounds were consumed in the United States last year alone. The demand is steadily increasing. In 1902 there was an increase in the importation of opium of fifty-seven thousand pounds over the previous year.

While the drug is not smoked so freely it is employed in the more dangerous form of morphin and its salts. These are usually employed hypodermically. About seventy-five per cent of the opium is manufactured into morphin and its derivatives. One hundred sixty thousand pounds of the salts of morphin were consumed in the United States during the year 1903—more than twice as much as the amount for 1901. It is estimated that there are probably one million drug fiends in this country, and that fully seventy-five per cent of these are addicted to the use of morphin or opium. Its use is most prevalent among doctors, other professional men, and society women. One half of the morphin fiends began the use of the drug in order to obtain freedom from pain or other annoying symptoms. After its narcotic effect has worn off, the nerves shriek out louder than before, and another hypodermic injection is taken. In order to keep free from the undesirable symptoms, it is necessary to continue the employment of the drug. Professional men and society women begin its use in order to bridge over some difficult or unpleasane task, or to stimulate their flagging energies that they may appear well in society.

Among recent products, none is more

freely and widely used than heroin, an opium salt, which many employ with the idea that it is a harmless substitute for morphin. On the contrary, "it has all the dangers of morphin salts in general, and additional dangers of its own." Especially dangerous are the trade preparations containing heroin. These are widely advertised as cough-sirups, asthma cures, etc. The drug has found its way into many of the patent medicines. Many find themselves slaves to these medicines, not knowing that they are really slaves to the morphin habit.

The dire effects of the many so-called "soothing sirups" upon thousands of innocent babes can scarcely be imagined. The awful crime of Herod, who slew the little ones of Bethlehem, does not compare with the evil wrought by these drugs upon the infants in civilized countries. The essential ingredient of these sirups is invariably some form of opium. To its influence the tender infants are especially susceptible. Soothing sirups soothe the restless, suffering babe, not by removing the cause of the pain nor by healing the disease, but by simply deadening the nerves and benumbing the delicate cells of the brain. The sleep produced is unnatural. It is a stupor from which the child may or may not awake. Serious injury is always sustained by the little ones, although the full results may not be seen until later in life. Shattered constitutions, demanding drugs later in life, are frequently traceable to the drugs administered by a well-meaning mother to her helpless babe. Better by far to let it suffer than to quiet it in such a manner.

Opium, we are told, was at first used exclusively by the mandarins of China, in order to ensure a certain energy of manner, and a keener gusto either for pleasure or toil. It was at first innocently offered to visitors as a mark of respect, as many in civilized countries now serve a cup of tea.

The flattered caller was almost forced to partake of it as an act of courtesy. In this way the habit spread, at first among the well-to-do, the nobility, and those who were brought in contact with the mandarins. Afterward the drug found its way to the lower classes, under the name of "polite tobacco," and by them was first smoked with a desire to imitate the example of the nobility. Habit finally established a love for it, and bound them with bands that they were unable to break. Its use became so general that there was not a district in the Chinese empire free from this curse.

Once the habit of taking opium is acquired, the craving is irresistible, and the effort to abandon its use is followed with intense suffering, which the devotee, for lack of will-power, is unwilling to endure. Thus he often remains a hopeless slave to the habit.

In China the smoking of opium by the youth has always been discouraged, just as in America the use of tobacco has been discouraged among boys and women, and for the same reasons. As it has now been fully demonstrated that if a certain quantity is capable of killing a boy of seventy-five pounds, twice this quantity will kill a man of one hundred fifty pounds, China is ready to discard opium altogether. In this she is a step in advance of America.

The Chinese begin when about twenty years of age to smoke a pipeful a day. By smoking only from one to three pipes a day, they may live for twenty or thirty years. Many, however, lose all self-control, and fall victims to the drug completely, using from six to eight pipes a day. Such live only from five to six years after the habit is acquired.

It is a deceptive drug. The victim imagines that he can not live without it; for does he not feel nervous, and in every way worse, when attempting to do so? many also suppose that it possesses the

power of imparting mental and physical strength, and of increasing one's pleasures and usefulness. This delusion is widespread among the ignorant classes, who for this reason fall an easy prey to the habit.

The chief constituent that causes the stimulation, or feeling of exhilaration and well-being experienced by the opium fiend, is a poisonous alkaloid known as morphin. This alkaloid is almost identical with alkaloids found in other products that are as freely used in civilized countries as opium is in China. The action of the alkaloids found in the poppy, the cacao seed, tobacco leaves, the coffee-berry, and tea-leaves is very similar. They all act upon the nervous system in such a manner that one dose tempts the second, the second creates a craving for the third, and the third *demand*s the fourth. Thus these habits become fixed, and men and women do not realize their slavery until an effort is made to give them up. Naturally the milder narcotics pave the way for the stronger ones. The user of tea, coffee, or tobacco is more likely to develop the morphin habit than the non-user of these.

Various cures are advertised. Frequently these contain the identical drug the use of which the habitue is trying to discontinue, or sometimes a drug still more dangerous; many times they free him from one drug habit by establishing another. Some marvelous "cures" are thus wrought.

In a preparation put up by a concern at Memphis, Tenn. to cure the opium or morphin habit, Dr. Kebier, of the United States Bureau of Chemistry, found twenty-four grains of morphin to the ounce.

"There was enough morphin in that one ounce to kill about twenty perous," he said, "yet that product, under our present laws, may be sent into every home without even a label actually to indicate its

poisonous nature. A similar preparation also for the opium and morphin habit, put up by a concern at Houston, Texas, at the head of which is a physician of supposed good standing, as in the case of the Memphis establishment, contains twenty-two grains of morphin to the ounce."

In abandoning the use of the drug, there will be some suffering. This must be expected. But this may be greatly minimized by treatments. To give up the use of opium or any other narcotic drug, take a period of rest, say two or three days. Eat nothing the first day, but drink hot water, with a little milk added, frequently during the day. The juice of oranges, apples, peaches, pears, or grapes may be taken whenever desired. A well-beaten fresh egg may be taken in fruit juice or in milk. On the second day, begin the use of some simple foods, such as poached or boiled eggs, and bread, with fresh fruit at the close of the meal. By the end of the second day the headache and extreme nervousness and feeling of prostration will probably have greatly subsided, or perhaps have disappeared. Continue to live upon simple foods, using fruits freely, even after a cure has been established.

The treatment of the morphin and allied habits becomes a comparatively simple matter in a well-equipped sanitarium, where the physician has at hand the appliances for the administration of rational treatment. An important requisite is a thoroughly trained nurse who can cooperate with the physician in everything that pertains to the welfare of the patient. After obtaining the cooperation of the patient, and placing him in charge of a competent nurse, the drug may be withdrawn at once, provided a physiological sedative is substituted for the artificial one. Hydrotherapy, electrotherapy, and massage are the greatest agencies that can be employed in palliating disagreeable symptoms as they arise, and in aiding the patient to make a speedy recovery.



Recipes for Preparing Fruits

The Orange

FOOD VALUE PER OUNCE IN CALORIES

PRO.	FAT	CAR.	TOTAL
.9	.5	13.5	14.9

THE orange is a native of Persia, but is now cultivated in all the warmer regions of the earth. "Trees of the orange tribe naturally live to a very great age in a soil and climate which suits them. There may be seen in an orangery at Versailles, France, a tree which was planted in 1421, and is still very healthy, growing with its roots in a large box. Under favourable circumstances, the productiveness of the orange is astonishing. . . . An orange-tree . . . in an orange garden of Barao das Laranjeiras (Azores)," is said to have produced 20,000 oranges in one season.

Ways of Preparing Oranges for Serving

The orange and its juice are conceded to be among the best of medicines for the sick and convalescent,—a medicine which is much more pleasant to take than many a physician's potion, and, I am inclined to believe, more potent in its beneficent effects upon the patient. If well persons would more freely use oranges (spending the money, let me suggest, which is now spent for tea, coffee, and other harmful indulgences, for fruit), they would less frequently come under the care of the physician.

The Lemon

FOOD VALUE PER OUNCE IN CALORIES

PRO.	FAT	CAR.	TOTAL
1.2	1.8	9.9	12.9

Lemon-juice— 11.4 11.4

The lemon is probably a native of

Arabia. It was unknown to the ancient Greeks and Romans. Lemon-juice is used as a refreshing beverage in fever and scorbutic infections.

While all fruit-juices are natural disinfectants and germ destroyers, this is especially true of lemon-juice, because it contains such a strong acid. "The juice of one lemon in two glasses of water, if left standing fifteen or twenty minutes, will thoroughly disinfect it. Thus fruit can be of great assistance to travelers, as the water on cars and in waiting-rooms is often so impure that it would be dangerous to partake of it." The lemon is highly valued in cookery as a flavoring ingredient, and its use is very common in making the popular beverage lemonade, for which some readers might like a recipe.

Lemonade

FOOD VALUE PER OUNCE IN CALORIES

PRO.	FAT	CAR.	TOTAL
		17.7	17.7

1 qt. water
 Juice 3 large or 4 small lemons
 $\frac{2}{3}$ cup sugar

After squeezing out the juice, strain it through a fine strainer. Thin slices of the lemon (cut off before the lemon is squeezed) may be added, if desired, or the rind of the lemon may be stirred with a fork, and the sugar rubbed over it to get the lemon flavour. Mix the ingredients; and when the sugar is dissolved, the lemonade is ready to serve. If used for medicinal purposes, as in fever, or as a hot drink in connection with treatment to ward off a cold, it would be better to use less sugar.

The Citron

The citron is a fruit similar to the lemon, but larger and less juicy, having a much thicker rind. The citron is describ-

ed by Theophrastus as abundant in Media. The Jews cultivated it at the time they were under subjugation to the Romans, and used the fruit then as at the present day, in the feast of tabernacles. It is grown in the West Indies. The fruit is not eaten raw; but a drink is made from its juice with water and sugar. Its thick rind is preserved in sugar, and used for flavoring purposes.

The Lime

The lime is similar to the lemon, but smaller. Its juice is acid, slightly bitter, and seems to me to have a sort of piny flavour. It is used in making drinks, and is sometimes preferred to the lemon. The lime has been celebrated in all ages for the fragrance of its flowers, and the excellence of the honey made from them. British sailors are furnished a weekly allowance of the extract of lime or lemon as a preventive of scurvy.

The Pomelo

FOOD VALUE PER OUNCE IN CALORIES

PRO.	FAT	CAR.	TOTAL
.9	.5	11.8	13.2

The pomelo is a variety of the shaddock, which belongs to the same family as the orange and lemon, and of which there are more than one hundred fifty varieties. The shaddock is a very large fruit, sometimes weighing from ten to twenty pounds. The pomelo is smaller. It has a smooth, pale-yellow skin. Its juice has an acid somewhat bitter in taste as we get it in northern markets, though sweet and not bitter where it grows. It is coming to be a popular fruit, eaten as an appetizer before breakfast, and also used in making salads.

To Prepare Pomelo for Serving

Wipe the fruit, and cut it into halves cross-wise. With a small, sharp-pointed knife cut all around the fruit just inside the skin so as to separate the pulp from the skin, then cut on both sides of all the membranes which divided the fruit into sections, and then cut next the skin on the inside at the end of the fruit, when the

entire membranous portion may be removed in one piece, leaving the sections of pulp in the skin, but free from tough portions. It is then ready to be served on a fruit-plate, or it may be sprinkled with sugar and allowed to stand in the refrigerator for ten minutes before serving, or a tablespoonful of grape-juice may be poured over the pulp before it is set away to cool.

Sweets for Youngsters

CHILDREN all like sweet things. It is perfectly natural that they should, because a child needs a great amount of heat-making material. Carbohydrates—starch and sugar—are material out of which the body makes heat. They are fuel for the body. A child requires more fuel, in proportion to its size, than an adult does. Here is a boy who weighs thirty pounds, and he has perhaps ten square feet of skin surface. The man weighs six times as much as the boy, whereas his skin surface is not much more than twice as much as the boy's.

It is to keep the skin warm that we eat, chiefly, for the heat is radiated from the surface of the body, and the larger the skin surface, the more the radiation; so a child has to eat very much more in proportion to its size than an adult does, because it has a larger skin surface. And so children have a natural craving for sweet things, have what is called a sweet tooth. But sweets should be given to children with great discretion. They should be used only at mealtimes and with other food.—*The Healthy Home.*

"FOOD not worth cooking well is not worth cooking at all. Food which is not worth serving well is not worth serving at all."

"COMMON salt, one part, and ordinary black soot, nine parts, when well mixed together, make a good deodorizer, which is perfectly harmless, and consequently can be used with safety in any home."

: Current Comment :

Milk Borne Tonsillitis

EPIDEMICS of "septic sore throat" in England have from time to time been attributed to the milk-supply, but in this country such outbreaks seem to have been less common, or, at all events, less commonly recognized. The fact that the remarkable epidemic of virulent tonsillitis occurring in Boston and vicinity last spring has been carefully investigated is therefore a matter for congratulation. The Boston epidemic, including the cases in Brooklyn and Cambridge, affected over one thousand persons, forty-eight of whom died. There is now presented unimpeachable evidence showing that the epidemic was spread in milk from the Southboro farm of the Deerfoot Company, the infection of the milk apparently originating in an epidemic of the same character which prevailed in Southboro and neighbouring towns during some six weeks preceding the Boston outbreak.

Apart from the high degree of virulence apparently possessed by the streptococcus strain concerned in the epidemic there are other features of special interest. The milk-supply implicated has been for some years one of the most favourably regarded among the large Boston supplies. This was due not only to the facts that excellent regulations were in force to avoid contagion and that cattle and farms were carefully inspected, but also to the fact that the whole process was controlled by an experienced and well-known laboratory worker under contract with the Deerfoot Company. The recent searching inquiry has failed to reveal any instance of neglect or lack of precaution. In a word, the conditions surrounding the implicated milk-supply would be considered ideal and

to-day are so considered by the best authorities on dairy sanitation. Here infection leaped the barriers of all known precautions. "Boston has suffered severe lessons along this line. In 1907 there were 717 cases of scarlet fever traced to one milk-supply, and seventy-two cases of diphtheria to another. In 1908 there was a milk-borne outbreak of typhoid fever totaling 400 cases. In 1910 there was another scarlet fever epidemic of 842 cases. Including the present outbreak, there have been over 3,000 cases of epidemic disease traced to milk in the immediate neighbourhood of Boston in a period of five years."

The Boston epidemic seems to cast some doubt on the value of the method of controlling the public milk-supply by inspection rather than by pasteurization, but cannot be regarded as wholly condemning efficient inspection, as inspection raises the general standard of cleanliness and consequent safety of milk. Accidental contamination under almost ideal conditions is always a possibility. Our readers will be reminded of the recent epidemic of diphtheria among the students and faculty of the University of Minnesota on which we have commented. In this case the source of infection was one of the cleanest and best-regulated dairies in the Minneapolis district, the contamination coming from a human source. The Boston epidemic demonstrates again that milk from a "model" farm may through accidental contamination, spread contagion widely. In this latter case there was no evidence that diseased cattle were the source of infection, the facts discovered in the investigation rather strengthening the hypothesis of a human origin. Probably

a temporary "carrier" was concerned. Inspection is an expensive process and many sanitarians have pointed out that in the nature of things it cannot afford absolute security, a statement that seems to be confirmed by the instances mentioned. With no desire to advocate or approve of the abandonment of careful inspection of dairies, notwithstanding its expensiveness, we must admit that the results of investigation of these two epidemics tend to support the advocates of general pasteurization of public milk-supplies.—*Journal Am. Med. Assn.*

That Tired Feeling

• When We Are Tired We Are Poisoned

WHEN the body or mind gets fatigued there are manufactured within us certain poisonous products. When we rest there goes on within us a similar manufacture of antidotes. Nature provides an antitoxin to meet the toxin. But that antitoxin is not medicine as prescribed by man: it is rest, nature's own medicine which we ourselves can prescribe. Medicine taken for "that tired feeling" is a poor way of getting at what troubles us. What we should get after are the fatigue poisons. These poisons are in the body. When those poisons make themselves felt in "that tired feeling" it is nature's signal to us not to fly off to a doctor and get medicine, but to act for ourselves: to slow up. When we fail to do this, but keep on, the new poison from the new fatigue re-enforces the poison that is already in the body and we get what we call "tired more easily," and finally, by adding to the poisons by constant fatigue, we "break down." It we live properly we will get tired just the same, but we give ourselves a period of rest sufficient to overcome the poison of fatigue.

All of us ought to get a clearer idea into our heads of just what brings about "that tired feeling." We have this feel-

ing more often at this time of the year, which simply means that we have pushed ourselves too far during the winter, and in the absence of the exhilarating cold of the winter weather we have not the vitality to overcome the poisons in our systems. What we need is not such barbaric foolishness as a "spring medicine" or a "tonic," but simply a period of rest. We want to "let go:" relax the nerves, and give the antitoxin that comes from the rest which nature provides in the body a chance to push out the poisonous toxin which fatigue has produced. That is the only safe, sane and sure cure for "that tired feeling."—*Ladies' Home Journal.*

An Argument for Total Abstinence

WHATEVER their differences in other directions, social workers in Europe seem to be agreed on one point; namely, that one who is working to save victims of the drink habit, must, in order to be successful, be himself a total abstainer. Experience has shown that a moderate drinker can not work with advantage for the permanent uplift of drink victims. Total abstinence is the only safe ground for one who has been a drinker; and the only one who can inspire in a drinker the ambition to be absolutely free from the habit is one who is himself a total abstainer. This fact, conceded even by some who favor the restriction as against the abolition of the liquor traffic, is a strong argument in favor of total abstinence, on the principle stated by Paul: "Wherefore, if meat make my brother to offend, I will eat no flesh while the world standeth, lest I make my brother to offend." 1 Cor. 8:13.

Life and Health.

A SPIRIT of criticism, if indulged in, leads to a censoriousness of disposition that is destructive of all nobler feeling. The man who lives to find fault has a miserable mission.—*United Presbyterian.*

: Mother and Child :

“How can I Keep my Baby From Crying?”

How Thousands of Mothers Do It and the Results
By Caroline Wormerly Latimer, M. D.

SOME years ago one of the most popular infant remedies then in use advertised its virtues in these words: “Babies taking So-and-So’s Soothing Syrup do not cry any more.” These words may well serve appropriately as a warning against all remedies of the kind, since babies taking any one of them are only too likely not to cry any more in this world.

It is hardly too much to say that all soothing syrups, teething cordials, infants’ friends, diarrhea mixtures, cough drops and other “patent medicines” employed to pacify or relieve babies depend upon opium for their effects. Even the time-honored paregoric contains one grain of opium in every tablespoonful. There are a few exceptions, but they are very few, and they usually contain drugs only one degree less harmful than opium. Out of twenty-three remedies of this kind recently analyzed by the United States Department of Agriculture it was found that one contained opium itself, while fourteen contained morphine, two codeine, one morphine and codeine together, and three heroin, all of which are products of opium, more frequently used nowadays because they are not so apt to be followed by disagreeable after-effects. The remaining two remedies contained, respectively, Indian hemp and chloroform, both of which drugs have their own peculiar dangers.

Dangers of “Patent Medicines” Containing Opium

Now whenever a “patent medicine” containing opium is given to babies or young children one of three dangers is present:

First, the child may die of narcotic poisoning. Sometimes this happens because the mother or nurse, in her anxiety to do the child as much good as possible, administers a larger dose than is called for by the directions. But even where the ordinary or prescribed dose is given the child’s heart may be weak and unable to support the depressing influence. Sometimes the remedy is given when the child is suffering from some acute disease—such, for instance, as pneumonia—in which the use of opium is dangerous.

The second danger is present when a remedy containing opium is used habitually. Such a condition of things usually arises from the fact that a certain medicine is found to quiet a baby on some particular occasion, and then is used every time the child is fretful or restless, until at last the baby becomes dependent upon it for every hour of sleep and ease, and has to be dosed with it at regular intervals. When such a child is attacked by an acute disease, whether one of the ordinary diseases of childhood or something more serious, the chances of recovery are much lessened, for children dependent upon opium have not the same vitality and power of resistance to disease as normal children. If the remedy is discontinued during the illness the possibilities of recovery are smaller still, for the sudden stoppage of opium is a great drain upon the strength, even with a person in ordinary health, and to withdraw it at a time when every atom of strength is needed to combat acute disease means, of course, that the fighting power is much diminished. If the doctor is aware that the child is taking opium he will take care not to stop

it until recovery sets in; but unfortunately the signs of opium may be so completely masked by the disease that the doctor has no suspicion, and the parents, thinking to give his measures full opportunity, quietly withdraw the remedy upon which the child's power of resistance depends.

Many a child has died because his strength was diminished by the habitual use of opium in some patent remedy, and many more children probably, because their reduced strength was still further lessened by the stoppage of the drug.

Just "A Little Dose of a Mixture."

A third danger connected with the habitual use of soothing syrups and kindred remedies is the formation of a drug habit. It may seem impossible that such a habit can be formed in infancy. But the fact is fully established. Such cases are far more numerous than the world in general imagines, and it is astonishing how they will withstand every effort at relief.

Recently a prominent and wealthy man told a physician that his daughter, when an infant, was given a "little dose of a patent diarrhea mixture," and whenever the trouble for which it was given recurred the remedy was repeated. Of course the child became completely dependent upon it. The parents had no idea that the remedy contained opium, and no suspicion of the real state of things crossed their minds until it was discovered by a doctor who demonstrated it to them by stopping the "patent medicine" and giving plain morphine instead, with precisely the same results.

But by that time the little girl had grown so dependant upon the drug that all efforts to do without it were useless, and by the time she was nineteen she had become a nervous wreck, in spite of the fact that everything money or affection could compass had been done for her cure. Her father told the doctor that he would

rather see her in her grave than what she was.

The strange thing about the whole business is that the people responsible for all this loss of innocent life and destruction of youthful happiness are almost always those by whom the victims are most beloved, and that they act, in most cases, from the best intentions. One mother, when asked why she had given her baby the patent remedy which caused his death, replied that she "could not bear to see him suffer." Probably the same answer would be given in many cases where children's sufferings have been ended once and for all by remedies administered for their relief.

It often happens that ignorance is the cause of evil here as it is in many other abuses. Many mothers who are young and inexperienced, or ignorant, welcome any remedy which is successful in keeping the baby quiet, without entertaining a suspicion of its harmful nature.

The wrapper in which the medicine is inclosed carries the strongest possible statement of its virtues, indorsed by testimonials so reassuring that few people have strength of mind enough to doubt them. What wonder that confidence is inspired? Take a working woman, for example, whose days are passed in hard labor, and she is grateful for anything that insures her night's rest; or, if a mother is young and fond of gayety, to keep the baby quiet enables her to enjoy a little amusement. A lawyer once asked the woman who cleaned his office how she could manage to go so frequently to evening entertainments—which he knew she did—when she had two very small children. "Oh, it's all right," she answered cheerfully. "Sure the wan tayspoonful of soothin' syrup kapes thim both like the dead till mornin'."

(Concluded next month.)

Abstracts

Digestibility of Food

BEST has been studying the influence of the mode of preparation of the food on its digestibility, using three dogs with retention cannulas at different points in the small intestine. It was found that addition of butter to bread and vegetables caused them to linger longer in the stomach and upper intestine, and thus be better utilized. Sugar, bread and potatoes sojourn only a brief time in the stomach and upper intestine while making the least demands on secretion. Flour gruels, meat and cream were always completely assimilated in the experiments, no residue reaching the cannulas. Raw fruit is digested to a soft mass before it reaches the large intestine, and Best thinks that the digestive apparatus will be spared just so much work if the fruit is cooked soft before being eaten. When the aspect or taste of the food stimulates the appetite, this starts secretory and motor reflexes which permit good digestion of the most widely diverse articles of food.—*Journal Am. Med. Assn.*

Flatulence

ASCERTAIN the predisposing cause, says Burnet, and put the patient, if possible, on such a plan that he will gradually be able to eat all wholesome, though probably for a time, at least, very simple and light, articles of diet with comfort and with great benefit to his general health and well-being. The less he comes to think of his diet and the more he is able, as time goes on, to forget his former flatulence and distention, the happier and better he will be. At first no doubt in most cases the diet will have to be carefully chosen and somewhat restricted. A rather dry

diet will be found to suit best in nearly all cases, little liquid being allowed with meals. This excludes all soups and broths at the beginning of a meal and allows of only a small quantity of fluid toward the close of the meal. What the special drink should be has to be decided in each particular case. Some will be best with plain water. As a source of flatulence the excessive use of tea among well-to-do people should always be born in mind. Animal food is, as a rule, best digested by these patients; it must be carefully selected and well, though plainly cooked—underdone rather than overdone. Much green vegetable will usually not be well borne, and what is given should be rubbed through a sieve, cooked as spinach is served. Often it is best to forbid potato, for a time, and to substitute toast or second day's bread. Farinaceous foods have to be given carefully and the effect watched, but where digestion by the stomach is chiefly at fault, starchy foods, as they are dealt with chiefly in the intestines, may be given in greater amount. (*Selected*).

I SLEEP, I eat and drink, I read and meditate, I walk in my neighbours's pleasant fields, and see the varieties of natural beauties, and delight in all that in which God delights—that is, in virtue and wisdom, in the whole creation, and in God Himself. And he that hath so many causes of joy, and so great, is very much in love with sorrow and peevishness who loses all these pleasures, and chooses to sit down upon his little handful of thorns.—*Jeremy Taylor*.

"It's the common virtues that make uncommon saints."

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CANCER CURE

DR. OTTO SCHMIDT, the well-known cancer expert of Cologne, Germany, has applied for the Italian Maraini prize of £4,000 offered to the discoverer of a cancer serum, who can prove that he has been successful in healing five cases by means of his remedy. Dr. Schmidt asserts that he is able to prove that he has made forty cures.

ACID AND CHOLERA

In view of the fact that text-books recommend acidulated water as a preventive of cholera, it is interesting to note that the experiment has been tried of having two hundred persons take very dilute sulphuric acid as a beverage. At the end of four or five days they began complaining of digestive disturbances, and one of the two hundred came down with the cholera; the experiment was discontinued for the reason that it is known that a disordered stomach strongly favors the disease.

RICE CULTIVATION

CULTIVATION of rice in the United States has increased so rapidly in recent years that that country now is growing practically all the rice it consumes, according to the department of agriculture at Washington. Some special varieties of rice, however, are still being imported for the use of Orientals who prefer this to the local grown product. The Philippines and the islands of the Caribbean Sea now get their supply of rice from the United States. Reports received by the department of agriculture show that the acreage of rice in Louisiana and Arkansas has increased approximately 700,000 acres in the last two years, although the majority of farmers in this section know little about irrigating their land.

CREMATION IN BERLIN

In preparing for the administration of the new law permitting the disposal of the dead by cremation it has been ordered that before the cremation of a body a most thorough examination must be made by autopsy, as soon as possible after death, to determine the presence of any evidence of crime in connection with the death. The physician's certificate must be very explicit as to the cause of death, and the family of the deceased must be closely interrogated regarding the course of the disease. After a body is cremated, it is too late to obtain evidence of poisoning or foul dealing.

TOOTH-BRUSH UNHYGIENIC

Two writers in the *British Medical Journal* have paid their respects to the tooth-brush. They found that after the brush is used once, each bristle becomes infected with germs, and may become an inoculating needle by which the germs are introduced under the skin, thus causing pyorrhea, and possibly anemia, gastritis, and arthritis. Their suggestion is that a new brush be used each time, that the brush be boiled five minutes after each use, or that it be kept in a one-per-cent solution of trikresol or in a ten-per-cent solution of formaldehyde.

SANITATION IN TOKIO

UNITED STATES Consul-General Sammons, at Yokohama, reports that the city of Tokio will construct a modern sewerage system in that city modeled on the plans of systems of modern cities, probably following closely that of Berlin. This is to be done in preparation for the world exposition that is to be held in Tokio in commemoration of the fiftieth anniversary of the crowning of the Mikado. Tokio is one of the largest cities in the world and covers a great area. It is stated that approximately \$17,000,000 to \$20,000,000 will be spent on this improvement.

IN PLACE OF THE ROLLER

AN arrangement has been invented by which small individual towels, attached by a loop to a curved rod so as to prevent their being stolen, may be used one at a time and dropped into a receptacle. This device will probably do away with the use of the unsanitary roller-towels in large industrial concerns.

Home and Health

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