Life & Health

THE NATIONAL HEALTH JOURNAL

ROBERTS, PHOTO

DO YOU WISH TO KEEP COOL?

+

MYSTERIOUS GLANDS

+

THE QUACK DOCTOR

+

SKIN BLEMISHES

+

CHOOSING FRUITS AND VEGETABLES

+

THE TRUTH ABOUT TOOTH PASTES

+

PAINS AND ACHES

+

OTHER FEATURES:

Family Physician
Reducing Diet
Boys and Girls
Mother's Counselor
Favorite Recipes

AUGUST 1936

HEALTH MAKES LIFE WORTH LIVING

15 CENTS

HAVE you been reading the Special Diets?

ONE suggestion for those whose appetites are waning: Read the recipes on page 25. A good idea, too, for the one who has to cook.

THE major importance of vegetables and fruits in the diet is their health-protective value. Learn more about these necessary foods in the article on page 14.

ONE of the best ways to suffer from the heat is to try very energetically to keep cool. But it is a comparatively easy job when you know how. Read the article on page 6.

AT last! A discussion of glands that can be understood by the ordinary reader. The article on page 4 answers the questions, What is a gland? What kinds are there? What do they do?

THERE are those who willingly pay two dollars for an electric-light or Russian sweat bath, but when they can get a good sweat in the summertime without money or without price, they complain of the weather.

NO other method of training a child produces quite such good results as the example set before him by parents and other associates, provided their example is good. To all those interested in child training, we would suggest the article on page 20.

EVERY summer brings a new crop of freckles, to cause dismay and start a search for every kind of freckle remover. But before you use one of these preparations, read the article on page 12. The writer also discusses moles, birthmarks, and warts.

INVESTIGATION of innumerable advertisers has usually disclosed that the greater the claims, the more remote the fulfillment. This applies in the field of medicine and medical practice as elsewhere. Read how to "Protect Yourself From the Quack Doctor," on page 8.

DON'T forget, especially when you go on a vacation to the country, that "nobody catches typhoid—he swallows it." It is a filth-borne disease, and comes from contaminated water supplies and impure milk. If you cannot avoid contact with typhoid, you should be vaccinated against it.

WHEN you buy a tooth paste, remember these things: The value of any antiseptic in the dentifrice is practically nil. Superlative claims for great curative values should be viewed with skepticism. Your dentifrice should contain no gritty substances. Why? See page 15 for the answers.

ONE law of nature is inflexible, that what a man sows in the way of gluttonous living and indifference to all the laws of health, he will reap in years to come in pain and suffering. But the first pain is a warning, and should be heeded, that more suffering may be avoided. Read the article on this subject on page 16.

The EDITORS' COMMENTS

Life & Health

THE NATIONAL HEALTH JOURNAL
FOUNDED 1885 FOR THE PROMOTION OF HEALTH AND TEMPERANCE

On Vacationing

ONE of the chief purposes of a vacation is to obtain a complete change. Men and women who have been confined to their offices in the city, deprived of pure air and out-of-door life, naturally look forward to this period when they can throw off the restraint of the everyday routine existence, and again romp about as they did when children, play some simple games, and really enjoy life.

It is refreshing to live with nature, to observe the tinted flowers, the foliage of living green, and to see the birds flitting about in the trees, and to listen to their sweet songs. When the day draws to a close and the evening shadows appear, there is something very soothing in lying in a hammock or a reclining chair, with the eyes fixed on the heavens above, and the innumerable stars. There is, in fact, no better remedy than this for tired nerves. Insomnia cannot exist in such an atmosphere and such surroundings. Insomnia is unknown among the creatures that live this natural, out-of-door life. It is the people who dwell in the cities who are troubled thus.

City life is unnatural at best. God never designed that men, women, and children should be huddled together as they are in our large cities, and thus be deprived of the beauties of nature, the sunlight, and the pure, out-of-door air. Congestion always means disease, whether in the human body or in the physical world. God made the country; man has built the cities.

But country life seems to afford little or no attraction to people today. They crave the artificial instead of the real. Since our lot is cast in such unnatural and abnormal surroundings, and like the caged bird we know little or nothing of what it means to live a natural life, it is well to get away once in a while and get a breath of pure air, and have a taste of what it means to enjoy the freedom of country life.

Most of those who are planning a vacation, think chiefly of escaping the heat during the summer months. They are looking for a cool spot somewhere up on the hillside, where they can lie down without much exertion and rest. This is not, however, what we should feel most concerned about, for the heat of summer may itself be a blessing to those who are confined to their offices with possibly no exercise, only that which they obtain swinging around on their swivel chairs.

Women do not welcome the heat because it induces perspiration and tends to spoil the decoration on their faces and lips; while the men feel uncomfortable, and try in every possible way to prevent the perspiration; yet it is possibly just what they most need. During the cold weather the skin is inactive. Impurities, which are constantly being formed within the body, are retained in the tissues. Perspiration is nature's method of keeping the system freed from impurities, and should be regarded as a blessing, not as a curse.

A horse that is kept in a box stall day after day with no exercise, in time becomes sluggish and stiff. If he is taken out, he walks with difficulty, and if he is compelled to run, he may perspire freely. It may be observed that the sweat is foamy, and that it has a disagreeable odor. If it is allowed to dry, there will be a white scum over the surface of the animal. This is an accumulation of the filth which has been stored up within the tissues. How different it is with a horse that works daily or has his daily exercise on the race course. He, too, may sweat, but there is no odor to it. The sweat, instead of being sticky, is limpid and almost as clear as water. It contains very little filth. The animal that exercises daily manages to keep the tissues free from these impurities.

Those who forsake the country life and attempt to live in the city, find it practically impossible to obtain pure air. The city air is always polluted with poisons thrown into it from automobiles, from the exhalation of living beings, and from furnaces. The more closely people are crowded together, the more difficult it is to obtain pure air to breathe. This crowding together of people in our cities tends to kill off the human race. Suppose you should go into your garage, and with the door closed, start up the automobile engine and allow it to run for a short time. You know what would be certain to happen. Three days later there would be a funeral, not because the person did not have air to breathe, but because the air he breathed contained the product of incomplete combustion, known as carbon monoxide. Carbon monoxide enters into a fixed or chemical combination with the blood. When carbon monoxide is inhaled, it is impossible for the blood to take on the oxygen which it needs, and the person actually dies of suffocation, or air starvation, though surrounded with air. Suppose we should take a pigeon and place it under a glass jar, and allow it to remain there for a few hours. It would die of air starvation just as would the person who was shut up in the garage, and for the same reason.

The human automobile produces the same poison that is produced by the gasoline engine. Hence, in our rooms

(*Continued on page 31*)

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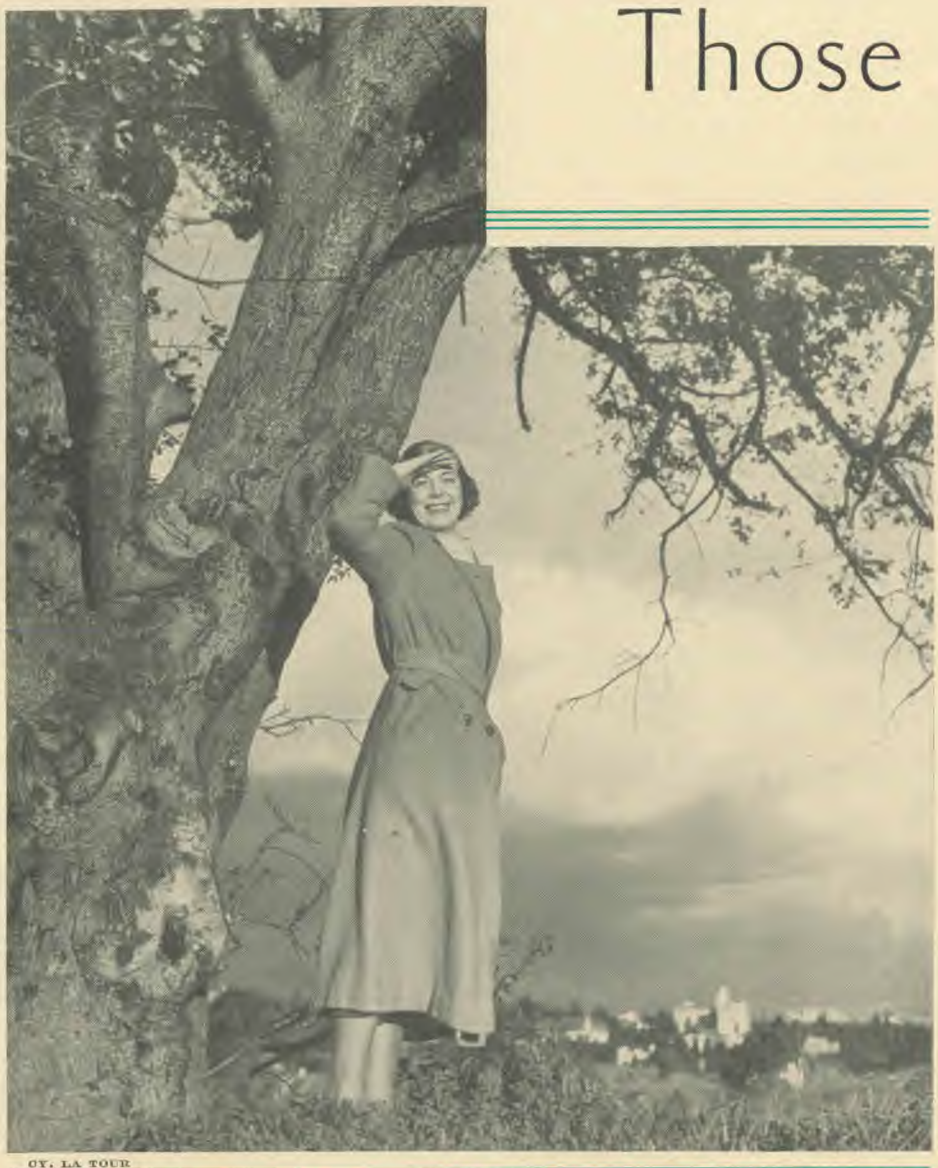
Those Mysterious



CY. LA TOUR

Raising the Question:

What are HORMONES?

by

Louis J. Pritzker, M.D.+

A PATIENT, while discussing the merits and demerits of cosmetics, remarked that she invariably favored a particular preparation of "facial cream" because it contained hormones. In my astonishment I blurted out, "What are hormones?" To which the lady replied, "I don't know, but it certainly says so on the label, as any one can plainly see for himself."

"My dear lady," I retorted, "I take it that you do not even suspect the complexity, the tremendous complexity, of the subject you have just touched upon; a subject that is at present engaging the serious attention of our outstanding scientists and of the entire medical profession. It is a subject of vast possibilities, the mere surface of which has so far scarcely been as much as scratched. But when I speak of the absorbing interest of scientists in the matter, I do not wish you to think that we are here merely dealing with a fine but abstract scientific problem of little concern to the great mass of people in general. I need to say no more than to call your attention to the occasional premature leaking out of half-truths and their effect upon the general public. Take, for example, the indicated, but unfortunately as yet very elusive, possibilities of rejuvenation alone. Consider how this almost set the world aflame with its fascinating potentialities for universal human happiness and, incidentally, think also of the attractive possibilities it opened up for the charlatan, the quack, and even the harmless novelist. But these are matters of common knowledge which I need not here enter into."

My object in proposing the terse question, What are hormones? is, of course, to set the stage for an answer to it. But in order to render such an answer lucid, it becomes necessary first to build up a certain receptive background for you. This will entail, among other related subjects which we will touch upon as occasion demands, a brief but rather detailed description of a certain group of highly specialized glands which constitute the source of the particular objects of our present interest, the hormones. I shall endeavor to use as few technical terms as possible, but since the occasional use of such a term in the discussion of scientific subjects is difficult to avoid, I shall hasten to define each such term as soon as used. And since I have already availed myself of such a privilege by the use of the term "glands," I shall redeem my promise.

A gland is an anatomical organ of a special architectural structure which fits it for specific manufacturing purposes. As part of its equipment, it is fitted out to receive and to sort out the necessary raw materials which are brought to its door by the great common carrier, the blood. Some of this material is used for the maintenance in good working order of the plant and its equipment. Other parts are utilized in the manufacture of the product or products for which the establishment was intended. In all the above respects, excepting the nature of its particular product, all glands are similar.

There also exist, however, certain well-defined differences, and because

* Captain, Medical Corps, United States Army during World War. Formerly Member of the Faculty, Northwestern University, Department of Gynecology.

GLANDS

of this, glands are divided primarily into two great classes, namely, excretion and secretion. To the first division belong all such glands as are engaged in the elaboration of material from the blood stream which is of no further value to the organism and which is intended to be ejected from the body. Such glands are known as excretory glands, or glands of excretion. Examples of such are to be found in the numerous sweat glands strewn all over the surface of the body. Their purpose in life is to rid the body of waste or effete products, which they do in the form of perspiration, or sweat. Other examples of excretory glands are the kidneys. Their purpose is similar to that of the sweat glands, and is accomplished by the elaboration and excretion of the urine.

To the second class belong all glands whose manufactured products are valuable and indispensable for further use in the economy of the body. Such glands are known as secretory glands, or glands of secretion. However, as there also exist certain important differences among the various secretory glands, they in turn are secondarily subdivided. To one of these subdivisions belong all secretory glands whose products are required for use in the immediate vicinity of their location. They render a sort of local service by pouring their product out through a convenient channel or duct which is part of their equipment. As an example of such glands, may be mentioned the salivary glands. These are located right beneath the lining of the mouth. Their ducts open directly into the mouth and pour forth quantities of saliva, necessary for the digestion of food, as soon as the stimulating presence of food makes itself felt in the mouth. This is also true of the peptic glands pouring pepsin into the stomach, or of the liver and pancreas, each of which pours its contribution of digestive fluids into the intestine through their respective ducts.

To the other of these subdivisions belong a group of glands whose manufactured products enjoy a universal demand throughout the length and breadth of our bodies. Obviously, in order to meet such universally popular demand, a more efficient mode of transportation than a simple duct becomes imperatively necessary. For this reason, the members of this subdivision dispense with the duct as part of their equipment, and instead hold their products constantly available for direct and immediate delivery to the blood circulation, which, as a means of transportation, may be depended upon to reach every nook and corner of the body at the approximate rate of about seventy-two shipments per minute. To further distinguish them from the first subdivision, the products of these glands are also known as internal secretions, or incretions. It is this latter group of glands which I had in mind when I spoke of "a certain group of highly specialized glands which constitute the source of hormones."

This group of glands is known as the *ductless glands*, the *system of glands of internal secretion*, or the *endocrine system*. The physical existence of these glands has been known to us for centuries, inasmuch as we invariably encounter them in our anatomical studies. Their far-reaching functional activities, however, have been so carefully and so mysteriously guarded from us by nature that it is only within comparatively recent years that we have finally succeeded in discovering some adequate knowledge regarding them.

These glands constitute a true and most fascinating organization of workers which, in efficiency, may well be compared with a high type modern business enterprise or a precise military organization. Its administrative personnel, to mention only the more important and better-known members, the heads of departments, so to speak, consist of the following:

The Thyroid Gland.—This gland is located in front and astride the windpipe. The importance of its responsibilities is comparable with that of an adjutant in a wartime military organization. Its predominating duties are to regulate certain chemical reactions by means of which heat and energy are being liberated (known as oxidative processes), and thereby to facilitate practically all body activities.

The Sex Glands.—These are commonly referred to as the gonads. They consist of the testicles in the male of the species, occupying a position between the thighs; and the

(*Continued on page 10*)

All Bodily Activities Are Influenced by the Glands: When Their Efficiency Is Lowered, It Will Be Noticed by Various Symptoms That Appear. Sometimes They Become Overactive, and Cause Troubles of Different Sorts

H. A. ROBERTS

COURTESY, CANADIAN PACIFIC RY.

Do You Wish to KEEP COOL?

Follow the Program Described Here

by

Daniel H. Kress, M.D.*

IT is not absolutely necessary to go to the mountainside or to take an ocean voyage at a great expense in order to keep comfortable and escape the discomforts of warm weather. It is possible to enjoy a good degree of comfort at home by merely making a few changes in the habits of life. The one who makes these changes may be able to maintain a greater degree of comfort at home than the one who seeks some high altitude and fails to alter his habits of living.

The human body is a wonderful mechanism. It possesses the power of adapting itself to changes in external temperature in such a way that the temperature internally remains practically the same, regardless of what the external temperature may be.

The internal temperature is maintained by means of the circulatory system. The temperature of the liver and of some of the deeper muscles in which the greatest amount of oxidation takes place, ranges from 102° to 105°, whereas the mucous membrane of the mouth has a temperature of about 98.6°, and the temperature of the skin is fully one degree lower.

Some have imagined that alcohol has a warming influence in cold weather, because under its influence a *sensation* of warmth is experienced. There may be a feeling of warmth in such a case, when the internal temperature of the body is actually dangerously low. Alcohol, by paralyzing the constrictor nerves of the blood vessels, causes dilation of the vessels of the skin, thus permitting a greater flow of blood to the surface. The increased amount of warm blood in the surface produces a *sensation* of warmth to the skin nerves. But the increased amount of blood causes too rapid cooling. The internal temperature may thus be several degrees below normal, and the person be unconscious of it. This explains why one under the influence of drink when exposed to the cold and in danger of death, does not appreciate his danger.

In cold weather the blood supply to the surface is lessened; in warm weather the surface blood vessels and capillaries dilate, and permit a larger flow of blood to the skin for

* Member of the Medical Staff, Washington Sanitarium.

the purpose of cooling. This explains the red, flushed faces and the swollen hands. The increased amount of blood distributed in the surface causes increased evaporation of moisture. On a warm day an adult may give off from two to four pints of moisture every twenty-four hours, and yet not perspire perceptibly. If the weather becomes very hot, more moisture oozes out, and becomes visible on the skin.

The moisture on the skin answers the same purpose as the moist cloth surrounding a pitcher of water on a warm day. In tropical countries, drinking water is usually kept in cloth bags, and hung up so that the breeze can get at it. No matter how warm the breeze may be, it will aid in cooling the contents of the bag. For this reason, men and women who do a moderate amount of work, and, as a result, perspire some, suffer less from heat than do those who sit quietly and try to keep cool.

Diet is an important factor in keeping cool on a warm day. In cold weather we feed our furnaces or stoves in order to keep our houses warm. As the weather becomes warmer, less fuel is required. The human body corresponds to a house. It has within it a furnace and an automatic stoker. When impressions of cold are made upon the skin, they are communicated to the heat-regulating centers, and consequently a greater amount of fuel is automatically fed to the body furnace, and a corresponding increase of heat is produced.

In warm weather it is not uncommon for people to eat the same kind of food and the same quantity that they do in cold weather; and then the fans must be kept going to keep these poor people from burning up. The lack of energy experienced during the summer months is frequently caused by the clogging of the living furnace with clinkers, due to an excess of fuel and incomplete oxidation, and not, as is supposed, to too little food. In order to feel fit and to keep comfortable, it is necessary to eat less.

In warm weather the digestive organs cannot digest the same quantity or quality of food that they are capable of digesting in cold weather. Wisely, therefore, nature takes away the desire for many of the solid foods, and furnishes us with greens, vegetables, and fruits in abundance.

Dogs fed on the same amount of meat in warm weather as in cold weather become ill. The cat that catches and eats the same number of rats or mice develops convulsions. Much of the summer sickness is due to the absorption of poisons, resulting from the decay of unsuitable foods in the alimentary canal. Summer diarrhea is chiefly due to this. The free use of meat is, therefore, not only unsuitable, but dangerous, in hot weather. Foods high in protein, such as beans, lentils, and eggs, which readily undergo putrefaction, should be used sparingly. If possible, supply in their place ripe olives, nuts, or olive oil, in moderation.

Fruits are, of all foods, the best during the summer months. The food elements in fruit are served in such form as to require very little effort on the part of the digestive organs to prepare them for absorption; the acids prevent putrefaction and are aids in the digestion of the protein food that it may be necessary to eat in addition to the fruit. They also contain liquid in the purest form obtainable to supply the needs of the body. Supercooked vegetables, such as cabbage, ferment readily, and should be used sparingly.

In warm weather the diet should be composed almost exclusively of cereals and fruits, with some additional wholesome relish. Salads made of lettuce, celery, and tomatoes, with the addition of a little lemon juice and olive oil, will be found appetizing and healthful. It is best to eat foods in as natural a state as possible. Should this diet be followed, there would be less summer sickness, sunstroke would be practically unheard of, and the outlay of means to go to a cooler climate in order to keep comfortable would not be necessary.

Linen or cotton underwear is preferable to any other, during warm weather. Light, thin, and loosely woven inner and outer garments are preferable, since they allow free access of air to the skin and permit evaporation of moisture from it.

Anger, anxiety, nervousness, worry, all intensify the heat. Self-control is a most important aid in keeping cool. By planning beforehand the work of each day, and then performing it in a quiet manner, comfort may be experienced even in warm weather. Periods of complete relaxation should be taken for a few minutes, at intervals during the day. A few minutes of complete relaxation before meals will be found beneficial. Do not complain of the warmth, or talk about it, thus encouraging the mind to dwell upon the weather. The heat is felt much more if this is done. It is possible to get so interested in our work that we cease to think of the temperature. The most uncomfortable individuals are those whose chief aim is to keep comfortable.

Sweating will do no harm. It is a blessing in disguise. There are those who willingly pay two dollars for an electric-light or Russian sweat bath, but when they can get a good sweat without money or without price, they complain of the weather. If we would sweat more than we do, we would undoubtedly have better health. The hard-working man who earns his bread by the sweat of his face, will have better health and live longer than will the one who is seated in his office in front of a revolving fan and earns his bread by the sweat of his brain.

Seen at a Wayside Pump

By Calvin P. Bollman

THE August sun was high in heaven;
The earth was dry and parched,
While to a rural, wayside pump
A motley procession marched.

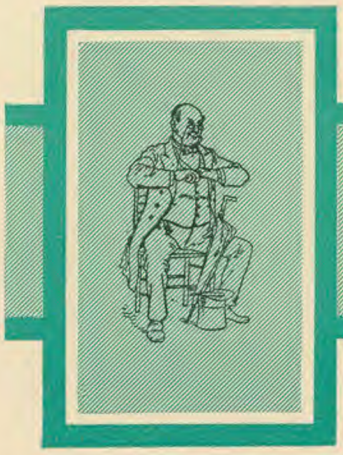
First came a preacher with solemn mien,
And from the pump he drank;
And then a woman with thin, black face—
Expression kindly, frank.

Two water boys from a railroad camp,
With wooden buckets came;
And anon a man of eighty-two,
All wrinkled, bowed, and lame.

A clucking hen with her cheeping brood
Drank from the overflow;
A long, slim wasp from her house of mud
Was seen to come and go.

A honeybee with her fussy way,
And store of nectar sweet,
Stopped awhile at the busy pump
And drank at a poet's feet.

A saucy bird, too, drank at the pump,
Where the grass grows fresh and green—
And these are a few of the many things
Which at this pump were seen.



Protect Yourself From the QUACK DOCTOR

An Important Article That Every One Should Read

by Frank J. Clancy, M.D.*

IF one could believe the laudatory statements of the self-puffed specialists and "patent medicine" exploiters, it would seem that sickness and death are quite unnecessary conditions.

The victim of cancer has a hundred varieties of "sure cures" to choose from. The sufferer from tuberculosis has an even larger range of selection. The epileptic, the lame, the halt, and the blind are all assured of restoration to the full bloom of health by the "patent medicine" vender, and its brother, the "advertising specialist." That all these impossible cures are unknown to men of science would seem to demand some explanation.

Scientific medicine, as we know it today, did not emerge as one great light upon mankind; it has been a slow, painful struggle from out the abysmal pit of fear, superstition, and ignorance. To separate man from his false curative beliefs has been the never-ending and difficult task of orthodox medicine.

The first of the great physicians to substitute critical observation, in the treatment of disease, for charms, amulets, and incantations was Hippocrates (460-370 B.C.). It is to this famous man that the medical profession is indebted for the celebrated oath that bears his name.

The Oath of Hippocrates is a code of moral and ethical conduct for physicians. Various modifications of this old vow are incorporated in the bylaws of all county medical societies and the "Principles of Medical Ethics of the American Medical Association."

The basic unit of the medical profession is the county medical society. Membership in such an organization entails submission to certain regulations, called medical ethics. When one considers the delicate and close relationship that must of necessity exist between physician and patient, the need of maintaining at all times the highest standards of professional conduct becomes apparent. A young man or woman graduating from an accredited medical college is expected to conduct his or her life, both public and private, in accordance with the ideals of the profession that has provided his or her education. Occasionally some fall from grace. As happens in all walks of life, there are always a few who refuse to conform to the established rules of social and professional conduct. However, it may be said in all truthfulness that in the field of quackery the accredited graduate is the exception; the majority are recruited from the ranks of the diploma-mill colleges—the self-deluded faddists and the downright crooks.

The quack's chief pretense to superiority is the possession of a mysterious secret remedy, the ingredients of which supposedly have a curative power far beyond that of other known substances. The principal reason for the *secret* remedy, however, is the necessity for hiding the worthlessness of the product. Thousands of the so-called "patent-medicine cures," when analyzed by the chemical laboratory, have been found to be the rankest of frauds.

What is not understood by most nonmedical people is that the medical associations, whether local or national, are incapable of exercising any restraining influence over nonmembers. In fact, unless a quack runs afoul of the law or commits some outward act, there is no agency that may interfere with his blatant pretenses to knowledge.

As the medical profession is ever on the alert to inform the public through its official channels of all that is new and acceptable to scientific practice, it is a safe rule for the uninformed patient to inquire of either the secretary of the county medical society where the patient resides or the American Medical Association when in doubt about a physician, or an advertised nostrum or treatment. Such inquiry may prevent not only much waste of dollars, but many disappointing experiences.

Advertising by a medical man is considered unprofessional conduct, because character, ability, and fidelity are not attained through extravagant and blatant publicity. An ethical and honest practitioner of medicine promises no radical and impossible cures or secret methods of treatment. An unusual or efficacious method of treatment discovered by a member of the orthodox profession is open and known to all physicians. It cannot be denied that some physicians, by inherent ability or superior training, possess greater skill than others. But this is not a matter of secret formula or mysterious knowledge denied lesser-known colleagues. It is a safe rule to remember that the reputable, competent physician does not require advertising to maintain his practice.

The quack, being by nature a most versatile person, constantly adapts his methods to meet prevailing conditions. The itinerant medicine-show "cure-all" nostrum vender of pioneer days gradually became the advertising specialist of the city, the buckboard "spiel" passing to the columns of newspapers, magazines, and the

* Director of the Bureau of Investigation, American Medical Association. Written especially for LIFE AND HEALTH.

"sucker-list" form letters. The advertising matter usually carried a half-tone engraving, picturing a benevolent-appearing individual embellished by a luxuriant beard, the beard in most instances being the "doctor's" chief claim to "medical" distinction. Similar pictures are still to be seen in connection with "patent medicines."

The predominant advertising quack at the turn of the century was the "men's specialist," whose blazing electric sign and pretentious office were to be found in the questionable districts of every large city. The Chicago *Tribune* published in 1913 an extensive exposé of innumerable fakers of this class then operating in Chicago.

The sheet-anchor of the quack has ever been the testimonial letter. Some testimonial letters are no doubt written by honest, but ignorant individuals whose opinions on matters of disease and treatment are, of course, valueless. Many testimonials bearing evidence of vigorous health have continued to appear in periodicals long after the writer's death. Such a posthumous testimonial was exposed in the *Journal of the American Medical Association* July 13, 1935. In this testimonial Mrs. Mary Deemer of Allentown, Pennsylvania, stated that she found "Natex" the only "patent medicine" that "really gave relief." Mrs. Deemer died May 25, 1935! Her testimonial was published in the Allentown *Morning Call* May 27, 1935. On the same page and but three columns removed from the testimonial, was Mrs. Deemer's death notice!

Since the twentieth century is an age of electrical and chemical advancement, the files of the Bureau of Investigation of the American Medical Association are abundantly filled with such exploitation. There are "cancer cures," "tuberculosis cures," "diabetes cures," "asthma cures;" in fact, for every disease to which human flesh is heir a mechanical device or a secret chemical nostrum has been provided to separate the unwary from his savings.

Most have a brief period of popularity, and then pass into the limbo of forgotten things. One of the most absurd of the pseudo-electrical apparatus was the Albert Abrams "Oscilloclast," a fantastic and utterly unscientific piece of buncombe. Abrams and his disciples claimed, among other things, to diagnose such conditions as cancer, tuberculosis, syphilis, etc., from a single drop of blood; it was not even necessary to see the patient. Of course, such claims were absolutely ridiculous, but the numerous Abrams exponents collected $1,000 to $2,000 a week from a gullible public while the deception lasted. The whole Abrams procedure was branded as ridiculous by many noted scientists. Similar pseudo-electrical devices still bob up from time to time, and will, no doubt, as long as gullibility remains a part of human nature.

"Whenever a new substance is identified by the research of chemists, whenever a new force is developed by physicists, whenever a philosopher propounds some new concept in the field of thought or mental activity, an inspired charlatan or promoter is likely to seize on the substance or device or idea, and exploit it for the cure of disease as a means of personal gain." And who is to say them nay? Certainly not those magazines whose advertising policy is dictated by the business office.

Investigation of innumerable advertisers has usually disclosed that the greater the claims, the more remote the fulfillment. Knowing that the general public has little means of evaluating medical knowledge, the advertising quack is not hesitant to make the most preposterous of claims. And again, who is to say him nay? The radio has offered unlimited opportunities to the pseudo-scientist. The present mode of a great many nostrum venders and self-puffed specialists is the age-old method of the "confidence man." The sympathetic appeal disguised by a Mumbo Jumbo of imitative-scientific language is as unintelligible to men of science as it is to the layman, but it sounds impressive.

Hippocrates—"the Father of Medicine"

Hippocrates, the Greek Physician, Was the First to Substitute Critical Observation for Charms, in the Treatment of Disease

The Oath of Hippocrates Is a Code of Moral and Ethical Conduct for Physicians, Which Is the Basis for Present-day Medical Ethics

Those Mysterious Glands

(*Continued from page 5*)

ovaries in the female of the species, located in the lower part of the abdomen (the pelvic cavity), to either side of the womb. These organs are predominantly in charge of matters pertaining to sex in all its phases, from the onset of puberty to the termination of all such activities at the change of life.

The Suprarenal Glands.—These occupy spacious accommodations over the kidneys. They are very important in helping the body to resist intoxications, poisons, and infections; they contribute to, perhaps control the functions of, certain tissues or organs of certain metabolic processes, very likely sodium metabolism. And here I have sprung a new term on you, "metabolism," as well as its adjective "metabolic." I shall therefore hasten to define it, and since we shall have frequent occasion for the repeated use of this term farther on, I shall request you to fix this definition firmly in your mind.

By the term "metabolism" is meant all the vital processes occurring in the organism which are concerned in the conversion of the inert, nonliving materials taken into our bodies in the form of food, into highly complex living cell and tissue substances (living parts and parcels of our body), and also in the eventual breaking down of parts of our tissues again into nonliving, waste matter to be ejected from the body. Both of these processes are necessary for the maintenance of life, for growth and development, and for the storage and generation of energy.

The Thymus Gland.—This gland is essential in such matters as growth and development in early infancy and childhood and, in some manner not quite clear at present, in influencing fertility in the adult. Its location is in the upper part of the chest cavity.

The Pancreas.—This gland is quite a busy little body. It occupies quarters right in the midst of a very busy industrial section in the abdomen near the small intestines, where, as I have already stated, it has a contract to deliver a digestive fluid by means of a duct especially constructed for the purpose. This plebeian occupation, of course, does not entitle the pancreas to membership in the endocrine system, but the manufacture of a digestive fluid is only one of its responsibilities. Far away from its duct and carefully guarded against any possibility of contamination with anything in that duct, the pancreas also manufactures a certain chemical which is constantly available for immediate delivery to the blood stream. It is by virtue of this chemical that the pancreas occupies the exalted position in the endocrine system of being in the predominating charge of starch and sugar metabolism. Nor is the pancreas unique in its dual position. Other similar examples are to be found in the liver, the testicles, etc.

The Pituitary Gland.—This gland is frequently referred to by authors as the "boss" gland; others refer to it as the "master" gland. In its lofty position way up at the base of the brain, the pituitary indeed holds an exalted office comparable to that of commanding officer. It is concerned in almost all endocrine activities. It initiates, aids, abets, stimulates, or inhibits, as the case may be, thyroid, gonadal, suprarenal, and pancreatic activities. It is concerned in growth, in protein, fat, and water metabolism, in milk production, etc. Indeed, it is difficult to designate any vital process in which the pituitary is not directly or indirectly interested.

Finally, since all body activities, including those of secreting glands, consciously or unconsciously emanate from brain impulses transmitted through its network of motor nerves, the brain stands in the position of *supreme command* or *general of the organization.*

Each member of the endocrine system, excepting those whose life-work has been completed and who, in the natural course of events, have been retired, is more or less indispensable to the service as a whole, and no gland, no matter how intimately associated with it, even though serving in a complementary capacity, may wholly supplant another in its special field of operation. On the other hand, owing to certain intimate relationships and functional interdependencies existing between them, a serious injury sustained by one of them may so disrupt the harmony of the whole as to upset the entire service.

And right here we have touched upon a subject of immense importance to the understanding of our main theme, the subject of glandular interdependencies.

No doubt you still remember the important offices occupied by, let us say, the sex glands. Yet surprising as it may seem, without the stimulating or provocative influences of the pituitary gland, they would remain as totally dormant and inactive as though they were entirely nonexistent. In turn, the sex glands exert a certain definitely encouraging effect upon the labors of the thyroid gland, which gland, as well as the adrenal glands, etc., returns the compliment in kind. Take as another example, so formidable a gland as the thyroid, and you will find to your astonishment that it is held in check by influences exerted by the suprarenal glands and that, removed from the beneficent influences of the pituitary gland, the sex glands, etc., it would itself slowly undergo a process of degeneration (or involution).

(*To be concluded next month.*)

[In his concluding installment next month, Doctor Pritzker answers the question: What are hormones?—EDITORS.]

"The Bitter Sea"

A Leaf From the Notebook of a Medical Missionary

BY A. MOUNTAIN

CHINESE often refer to this world as "The Bitter Sea," an expression which poignantly sums up the distress, pain, and cruelty under which the inhabitants of heathen lands suffer. To them the medical missionary comes with healing balm for both body and soul. The good he can do in the name of the Great Physician is beyond human computation. Often we see poor, pain-racked human beings carried on bamboo stretchers to the mission hospital—their last hope—and then, later, see them walking out, the joy of new-found health and hope beaming from their faces.

Many of the patients who come to us are in the last stages of disease. We often marvel that life can persist in such emaciated bodies. One woman with an enormous abdominal tumor came to our hospital at Yencheng, Honan. She had been bedridden for years, and it was evident that the affliction was fast sapping her life. She weighed 160 pounds before the operation. The surgeon removed 90 pounds of fluid and tumor, leaving her with only 70 pounds of wasted body and limbs. She rapidly gained in weight and strength, and in a short time, to the amazement of her friends, went home perfectly well. And in her heart she carried an undying love for her new-found Friend in whose name this work of mercy was performed.

The news of this healing spread far and wide. Soon another woman, similarly afflicted, came to the hospital for help. From her the doctors removed a 110-pound tumor, leaving the patient weighing 75 pounds.

Without the self-sacrificing labors of the missionary physicians, thousands of such sufferers can only await with a heathen's fear the dread nightfall of a hopeless death. Surely such physicians are sent forth as angels of mercy to bring deliverance and hope to those who sit in darkness.

Hankow, Central China.

That Marvelous Machine YOUR BODY

by Clyde A. Haysmer, M.D.+

PHOTOGRAPHIC ILLUSTRATIONS, INC.

Not Until One Starts to Study the Work of the Body, and How It Is Made, Does He Realize What a Marvel It Is

WE are so familiar with the human body and its many uses that we seldom stop to consider the wonders of the body itself, although they excel those of our great mechanical age.

The body is composed of systems, such as the digestive system and the nervous system, which are in turn composed of organs, as the stomach and brain. These organs are made up of minute units or cells which may be likened to the material from which a house is made. There are many sizes and shapes of these, just as there is a great diversity of building materials.

Any structure must have a framework. In building a house we get something that is rigid and use it in the construction. Rigid bones are necessary to the body. The elements are taken in and reduced to molecules, and then reassembled to form the bones. Furthermore, this framework starts small and grows larger, not by adding one bone on top of another, but by an increase in the size of the bone itself.

Not only must the individual parts of the framework be rigid, but there must be joints as well. We do not realize the number of times a day the joints in our fingers or jaws move. How long is it since you took them to the service station and had them lubricated? With all our modern wisdom, man has no reason to boast until he can produce a self-lubricating bearing which will run, on an average, for fifty-nine years without repairs.

A perfect skeleton would be useless unless there was another system to give motion to it. This is done by the muscular system. The muscles are made up of cells that have the remarkable power of contracting and expanding. When the muscle contracts, it becomes shorter. If the ends are attached to bones, the bones will naturally be moved. The hundreds of muscles of the body are so arranged that almost any conceivable motion may be imparted to its different portions. Here we have a good illustration of the use of the lever, which is considered one of the primary mechanical principles. This principle being incorporated in the structure, the human body shows design rather than chance in its arrangement.

All the work done by the body expends heat or energy and entails wear and tear. This necessitates some provision for supplying material to make up these losses. Natural foods supply all these requirements. However, as it is impossible to take a slice of bread and butter and put a piece of it into each of the octillions (more or less) of cells of the body, it is necessary that this food be reduced to a finely divided form which can be taken into the blood and then carried to the various parts of the body.

This is the work of the digestive system. And how well this work is done if we will just give the body a chance, by being careful not to abuse it! Not only does each part do its particular work well, but the different parts are so related as to work in harmony and aid the others. First, the food is taken into the mouth and there chewed well (or at least it should be). At the same time it has stimulated the nerves, which then send a message to the salivary glands to produce saliva. This saliva is mixed with the food, thus lubricating it so that it can be swallowed easily, and starting the process of digestion. Then the tongue pushes the food backward, where it is caught by the action of the throat which is narrowed by the contraction of its muscles, thus pushing the food down.

But at the same time that the tongue pushes the food back, there is another important occurrence. There is a lid pushed down over the voice box so that the food will not go into the lungs. The muscular action of the esophagus pushes the food down into the stomach. Here the glands take certain substances from the blood and form a powerful and complex digestive juice. This would be of no value unless properly mixed with the food; so at the same time that the upper part of the stomach acts as a reservoir, the lower part acts as a churn, thus mixing the food and the digestive juice.

Time will not permit of following the food in detail through the remain-

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* Member of the Medical Staff, New England Sanitarium.

SKIN BLEMISHES

AMONG the commonest of the skin blemishes are freckles. These represent a somewhat weak attempt on the part of the skin to form protective pigment against the sun's rays. Ordinarily these little pigmented spots fade out during the winter, but the present craze for excessive sun tanning frequently results in freckles that last throughout the winter and that cause considerable disfigurement to the face, neck, arms, and shoulders. Inasmuch as the pigment is situated deep in the skin, its removal may result in permanent scars. There are many freckle creams marketed by the greedy, and nearly all contain some form of mercury, which not infrequently irritates the skin severely. A number of cases of general mercurial poisoning from this source have been reported. The best dermatologists (skin specialists) resort to the tincture of time as the best remedy.

Moles may be deeply or faintly pigmented, and may or may not contain hairs. They vary much in size, elevation, and number. The larger raised hairy moles may be safely removed by either the knife or the modern "electric needle." The flat, nonhairy moles, particularly those which are scaly, present a different problem. Any type of irritation or injury may cause them to become extremely malignant. Such growths are best removed by a wide excision with a cautery or an electric cutting knife; naturally a considerable scar often results.

The larger pigmented birthmarks usually are perfectly easily and safely removed either by the knife in the hand of a good surgeon, or by the dermatologist with the electric knife or needle. Neither the X ray nor radium should be used, unless either irritation or an attempt at removal has resulted in the growth or ulceration of the pigmented area.

Freckles Are the Price That Many Have to Pay for Being Out in the Sun. They Represent a Weak Attempt of the Skin to Form a Protective Pigment. Freckle Creams May Cause Mercurial Poisoning. The Best Way to Get Rid of Them Is to Let Them Fade Out in Time

R. & H. PHOTO

"Blue moles" are usually believed to turn readily into cancer unless they are taken out with a wide area that may leave a scar. The opinion of an expert physician should always be obtained before one of them is touched.

There are a number of varieties of red birthmarks due to a local weakness of the blood vessels, and that obviously are due to changes in the blood vessels. These usually appear about ten days after birth. There are three common types. The first is the so-called "port-wine stain," which is a flat discoloration usually affecting the face or neck, and varying in color from pale pink to deep purple. Unfortunately there is no really satisfactory way of alleviating this condition. Benefit has been reported from the ultraviolet rays, but with no uniformity. The second type is the "strawberry nevus," or raised growth, which is most common upon the face, arms, or hands. In a small percentage of cases the growth spontaneously becomes much smaller and may even disappear. In other instances it gradually becomes larger, and must be treated. Radium is by far the best treatment, and gives beautiful results if properly used. It is not uncommon to find in young children a small, central red spot with some dilated veins extending out from it like a spider's web. Touching the central spot with a cautery or electric needle will usually cure the condition. In older persons small red spots may appear upon the body. These can be cured in the same way.

Small scars from chickenpox, acne, or similar conditions usually become much less noticeable with the lapse of time. Attempts at repair by peeling, skin grafting, or the burning down of the edges, result in an even worse appearance of the affected area.

Warts of various kinds may assume a serious problem. All warts are more or less transmissible from one portion of the body to another.

* Ex-Chairman, Section on Dermatology, American Medical Association; for many years Professor of Dermatology, Georgetown University. Written especially for LIFE AND HEALTH.

Freckles, Moles, Birthmarks, Warts, Liver Spots

by Henry H. Hazen, M.D.+

H. A. ROBERTS, PHOTO

The Buyer Should Know Just What Is in the Product Which Is So Glowingly Recommended by the One Who Sells It

It is a very common occurrence to find a dozen small warts clustered about one larger and older one. At times, warts develop so rapidly that they literally seem to sow as many seeds as a weed.

The three commonest types that are apt to become numerous are: (1) A small flat, inconspicuous variety on the hand or face of young people. (2) Large flat warts that develop on the body or face of those past thirty-five. As a rule stout persons are more prone to the body warts. At first these are chamois-colored, but later they become a deeper brown. On the face the color may become almost black. (3) Numerous small warts about the neck; some of these are considerably elongated and some nearly flat.

The first variety can frequently be cured by internal medication, always at the hand of a physician. In other instances it may be necessary to resort to a strong peeling lotion, or even the electric needle. The second variety is resistant to treatment, and must be removed one at a time with either acid or the electric spark. The third group can be snipped off with a fine pair of scissors, and the base cauterized or touched with an electric spark. At times, a strong peeling solution of salicylic acid in alcohol will cure them.

In general, warts are of two varieties, those that will not stay on, and those that will not come off. The first variety is responsible for the success of the "loadstone ladies" and various medical gentlemen interested in hypnotic influences. It will be recalled by those fortunate enough to have been acquainted with the life of the small town that in it there is often an old lady reputed to be able to cure warts. The person who has one or more of these nuisances and consults this lady, receives a "loadstone" which is first rubbed over the wart; then the possessor of the wart is instructed to go to the cemetery in the dark of the moon, presumably with the left hind leg of a rabbit in his pocket, to wait until a black cat has crossed his path, to utter some incantation, and to throw the stone over his left shoulder and speed home. Six months later he looks for the wart and is supposed to find it gone.

Certain dermatologists, usually of the foreign school, believe, or pretend to believe, that warts can be cured by putting the patients under hypnotic influence. The American dermatologists have had very little success with this rather unique method of treatment. Probably one will soon hear from the psychoanalysts that warts are due to sexual repression, and can be cured by the removal of inhibitions. Such repellent notions are coming so much into vogue that they require a word or two of criticism from all decent persons.

The so-called "liver spots" have nothing whatever to do with that organ. There are a number of different varieties. The first is due to the effects of irritation of almost any variety upon the skin, and varies greatly in size, intensity, and duration. Another type is associated with pregnancy, or ovarian disturbance. A third type occurs upon the back of the hand, and is simply one type of large freckle. The fourth type is a raised scaly patch, known as a keratosis, and occurring upon the face. This first develops as a reddish inflammatory scaly spot, which later becomes covered with a black crust. All of these varieties are best treated by physicians.

One occasionally encounters persons with skin that is practically perfect despite a goodly portion of abuse. In the majority of instances the skin needs care just as do the fingernails or teeth. An English dermatologist is supposed to have said to a patient, "If you desire a good complexion, buy a pot of rouge, bury it in the ground one mile distant from the house. Then walk there and back, once each day, be the weather fair or foul, to make sure that the pot is still buried." Of course, out-of-door exercise is not the only requisite for a good complexion; absolutely essential is good general health, dependent upon proper food, plenty of rest, and proper diversion. Local cleansing is necessary, and every dermatologist agrees that soap and water, and not cleansing creams, are the proper agents. The avoidance of irritation is likewise essential. Anemia must be properly treated; diabetes is the cause of local infections and ulcerations, and a dry skin may be caused by undersecretion of the thyroid gland.

Certain skin diseases seem to be dependent upon infection in the tonsils, teeth, gums, sinuses, gall bladder, or appendix. The most common of these skin conditions is chronic hives. Food deficiencies are responsible for pellagra. The so-called allergic conditions, or super-

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Choose Your FRUITS and VEGETABLES For Their FOOD VALUE

by Louise Stanley, Ph.D.+

H. A. ROBERTS

The Next Time You Are Ordering Fruits or Vegetables, Select Them for Their Food Value

THERE is science in the choosing of vegetables and fruits. If we would get the most food value for our money, we must choose the different items for what each can contribute to good nutrition, as well as to our immediate satisfaction. Nearly all foods contain something of each of the necessary food substances, though it may be only a trace, and the total food value of vegetables and fruits in the diet is the sum of many contributions, large and small. But as a practical matter, for a good diet, we must choose different foods for their different outstanding values, in order to make sure of the needed variety. A good diet is not simply all we want of the foods we like. It must include the necessary variety of food substances needed by the human body.

The major importance of vegetables and fruits in the diet is their health-protective value. This value is due to the fact that they are, generally speaking, sources of minerals and vitamins, without which the body cannot function properly. But many vegetables are also good energy and body building foods, by reason of the carbohydrates, fats, and proteins they contain, as well as their minerals and vitamins. Thus, in any meal with bread and butter, and potatoes or other starchy vegetables, we have plenty of energy food, and need to concern ourselves chiefly with choosing foods that will add proteins, minerals, and vitamins. Nor is it difficult to supply the proteins we need. To make sure of plenty of minerals and vitamins is the chief call for planning. Authorities say that the average American diet is likely to be short in calcium and iron, and constant care is needed to make sure of vitamins A, B, and C, and for children, vitamin D. In some sections of the country the chief deficiency is food containing vitamin G.

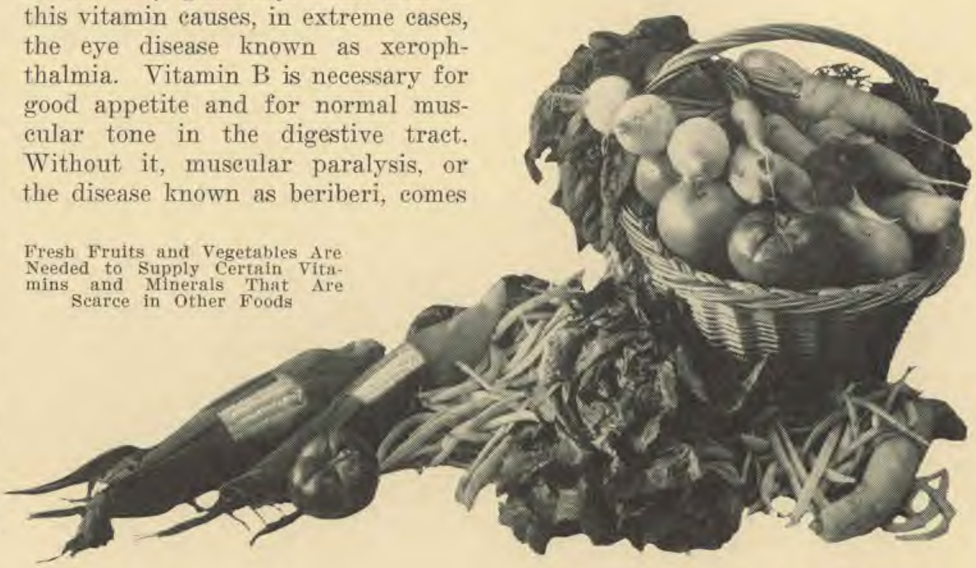
Calcium is a bone-building material, and iron is a blood builder. Vitamin A is needed for healthy eyes, nose, throat, and the linings of the body generally. The lack of this vitamin causes, in extreme cases, the eye disease known as xerophthalmia. Vitamin B is necessary for good appetite and for normal muscular tone in the digestive tract. Without it, muscular paralysis, or the disease known as beriberi, comes eventually. Vitamin C is needed for protection of teeth and gums, and ultimately for protection against scurvy. Vitamin D, with milk for the calcium, is needed to prevent rickets in children. Without foods rich in vitamin G come other ills, of both children and adults.

Vitamins A, C, and G, and some of the minerals, are not found in abundance in many of the common foods, so it takes planning to provide them in sufficient quantities in the diet. Many foods, especially vegetables, do contain vitamin B, but most of them do not contain very much; and this vitamin, in any case, is so easily lost in cooking that every source counts. Vitamin E, essential for reproduction, is the only vitamin with which we need not concern ourselves especially. It is found in many kinds of food, and is not readily destroyed by cooking.

For calcium we depend chiefly upon milk and milk products, and upon some of the vegetables. Iron occurs in many foods, but usually in such small quantities that many sources are needed to make up the iron requirements of the body, and the iron-rich vegetables and fruits are all the more important for their contribution.

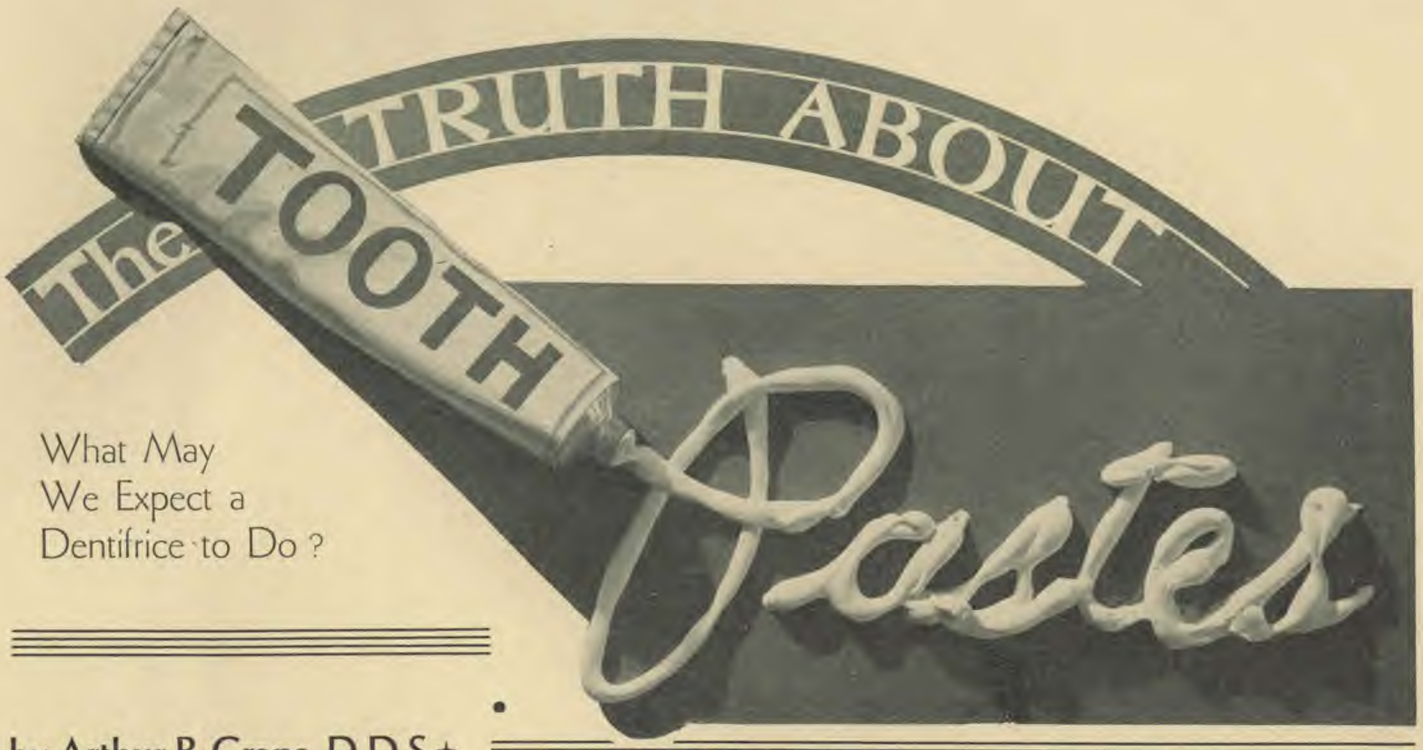
Vitamin A is found in such fat-rich foods as butter, cheese, and egg

(*Continued on page 25*)



Fresh Fruits and Vegetables Are Needed to Supply Certain Vitamins and Minerals That Are Scarce in Other Foods

+ Chief of the Bureau of Home Economics, United States Department of Agriculture. Written especially for LIFE AND HEALTH.



What May We Expect a Dentifrice to Do?

by Arthur B. Crane, D.D.S.+

IT is claimed that the sale of dentifrices in the United States totals more than sixty million dollars each year. One of the most frequent questions the dentist hears is, "Doctor, what tooth paste do you recommend?" The dentist is deluged with pamphlets, free samples, and sales talks by innumerable manufacturers of various tooth powders, tooth pastes, and mouthwashes. Often he has neither the time nor equipment to test the efficacy of the various dentifrices. He may even be influenced by the unsupported claims of some manufacturers.

The American Dental Society, however, has a council on Dental Therapeutics. This council has made a very careful and unbiased investigation of the claims of various manufacturers of dentifrices and has declared that no dentifrice can do more than aid in the cleaning of the teeth. The value of any antiseptic or drug which they may contain is practically nil, because they can hardly be used strong enough or remain in the mouth long enough to have any effect on the mouth germs. Superlative claims for great curative values should be viewed with skepticism. These often lead people with diseased mouths to attempt self-treatment, and have been a cause of delay in the proper treatment of mouth diseases.

The daily drugging of the gums with powerful antiseptics, astringents, or tissue stimulants, may cause disease instead of preventing it.

Dentifrices should not contain any gritty substances. Any paste or powder which will dull a piece of glass if rubbed over it, is absolutely unfit for use. Another test is to take some of the dentifrice on the tip of the tongue and rub it slowly against the roof of the mouth. If the least grit can be felt, it indicates that it is too harsh for daily use.

There has been considerable discussion in the dental profession as to whether a dentifrice should be acid or alkaline; but those which are fit to use react only slightly either way, and are very nearly neutral. Almost any dentifrice which is advertised as a stain remover, especially if it is said to make the teeth snowy white, should be viewed with suspicion. Experiments have shown that exposure of the enamel of the teeth to such dentifrices for even brief periods, will often produce a definitely etched or roughened surface. The bulk of most dentifrices is practically the same. There are many in which the only practical difference of one from the other is in flavor or coloring matter. These are usually harmless, but, of course, add nothing to their efficiency.

Soap is a constituent of many commercial dentifrices. There has been in time past an erroneous opinion that soap used in the mouth is harmful, but modern investigation has shown it to be the most valuable agent which can be used in a dentifrice. It acts to neutralize free acid in the mouth. It is really an effective antiseptic, and any one who has ever made fine china and glassware polish with soap and water, knows that it is a wonderful cleaner.

There is a wide variety of mouthwashes on the market. They are nearly all reputed to have some curative value or to act as preventives of mouth diseases. Most of them are harmless, if diluted according to directions, and many of them are useful when the mouth is actually diseased. But they will not cure pyorrhea nor decay.

The mouth is filled at all times with thick, insoluble mucus. Until this is removed from the gums, no drug can act upon them. When the mucus is removed, it carries most of the germs with it.

A half teaspoonful each of ordinary table salt and baking soda, dissolved in a glass of water and used to rinse the mouth, will cut the mucus and neutralize mouth acids. It will also stimulate a flow of new saliva, which is nature's mouthwash. It is doubtful if any combination of drugs can do any more.

Probably the use of precipitated chalk on a brush dipped in soapsuds will accomplish all the benefit which can be obtained from any dentifrice, no matter how high its price or how extravagant its claims.

* Chairman, District of Columbia Chapter, International Association for Dental Research; formerly, Research Professor of Mouth Diseases, George Washington University.

ACHES and PAINS

Warning Signs on Life's Highway

by

Harry W. Miller, M.D.*

GENERALLY there is a result to every cause. Disease and sickness are the result of some neglect or error, and we know that in most instances sickness as well as premature death is preventable. The results of indiscretion in diet, indulgence of various types, ignorance, recklessness, heedlessness regarding the care of the body, and indifference to rules of health are not always immediate in their manifestation. In some cases it is a long time, even years, before something develops that had its beginning in one or more of the transgressions of nature's laws. Nature is very exacting. It keeps a very careful account of every action and influence that enters into the life.

At times, results of indiscretion are noted immediately, as pain in the stomach following hasty eating or eating wrong combinations or foods of an irritating, distressing character. In other cases, disease may be years developing. Some germ may have caused a localized infection in the early period of life, and possibly 20, 30, 40, or 50 years afterward, one will note disorganization of the brain, developing insanity, or apoplexy from the gradual process of the hardening of the arteries, due to these toxins created by germs that entered the body years before. Or there may be sudden heart failure from a similar cause. One must some day pay the price for transgression of the laws of health and hygiene, for ruthless indifference, or for gluttonous living, all of which may bring temporary satisfaction, but for which one pays heavily in the suffering and anguish that he experiences in years following.

However, the law of reaping what we sow works both ways. Strenuous efforts, self-restraint, painstaking heed to health regulations, wise selection of food, thorough mastication (ensuring good digestion), clean and healthy living, will preserve healthy bodies, will tend to ensure long life and freedom from disease, will give comfort to the being and a sense of satisfaction, will prolong life and add greatly to the efficient service and usefulness for which men and women are greatly appreciated by their fellow men.

Our lives, after all, are made up of little things, and some of the minutest things in nature often cause most serious results; for instance, germs. Many people hear the name, but few people indeed have any appreciation of just what a germ is and what it is like, except that they know what the diseases caused by germs are like. Germs are very minute and microscopic, and we might think, Why should a large, grown-up, healthy man be afraid of that which is so very minute and microscopic in character? Yet these minute germs, when they enter our bodies, take root in the tissues, multiply their kind, and as a result of their multiplication, produce a poison, paralyzing and destroying the cells of our body.

With their increased growth comes increased destruction. Whereupon we are soon in the full swing of a disease that floors us (puts us on our backs), with aches and pains and discomfort that make our lives almost unbearable at times. Yet this is all the result of a very minute germ.

To fight our battle in life and do it successfully, we need to conserve every possible resource. How many times failure at accomplishment is the result of just a little lack. Recently an airplane was reported to have crashed, destroying its pilot and occupants, merely because of the lack of just a little gasoline. A gallon of gas would have saved the lives of the pilot and all the occupants, for it would have enabled the pilot to make a landing on an airfield, which he could see, but could not reach. Similarly, a crash in one's health or a fatal termination of a disease is frequently the result of just a little lack of reserve, which might easily have been stored up and carried, by giving the necessary attention to health regulations.

Many people feel that a little alcohol in the form of light beer or port wine, in small quantities, or some other stimulant, causes no great harm, for it weakens only a little. Others feel that the smoking of only a few cigarettes a day, or the use of coffee or tea, since these contain so little of the stimulant, can be continued quite safely, and without ill

* Medical Director, Shanghai Sanitarium, China.

effects. Although it is true that the human body has wonderful endurance, and a remarkable system for the disposal of poisons, yet the extent to which the body has to utilize the eliminative organs to throw off the poisons taken into the body in addition to wastes formed within the body naturally, is often just sufficient to break down a vital organ, as the kidneys, or the pancreas, or the liver, with resulting Bright's disease, diabetes, or cirrhosis of the liver.

Though it is true that the smaller the quantities of these poisons taken into the body, the longer the break in these vital organs may be delayed, yet we never can tell how long these persons could escape contracting disease, or how many more years they might have gone on in health without disease manifesting itself in these organs, if that little indulgence or that little indiscretion had not taken place.

After all, when we sow for health, why not make a clean sweep and do a good job of it? If we aim at living the healthy, temperate life, then why not exclude everything harmful, using only those foods and beverages, and practicing only those habits of living that are health preserving and health promoting, and avoiding everything of questionable value?

It is very true that we get out of life what we put into it. We will reap what we sow. If we start early to regulate our life and our program in harmony with health laws, we will obtain great reward, which seems to greatly compensate us for the effort put forth, in the robustness and vigor enjoyed in the later productive periods of life.

We repeat that we are safe in saying that every disease and every ailment has its cause. When we face the proposition of curing a person who has contracted a disease, our first interest is to find out the cause of the trouble. We search most diligently for it. If we are successful in determining the cause, then we feel a great sense of satisfaction, for experience has demonstrated to us that our best results in curing disease are obtained by eliminating the cause. If an individual has a headache located in the upper part of the forehead, which grows worse during the latter part of the day, and is associated in the latter part of the day with an aching sensation in the eyes, causing a squinting of the eyes, we may be suspicious that it is due to defective vision. If on examination of the eye, we find that such defect is present, we are the more convinced that we have doubtless found the cause. If the correction of errors in refraction by a pair of properly fitted glasses results in clearing up the headache, then we are very certain that we have found the cause.

We might have given phenacetin, aspirin, amidophen, caffeine, or any number of other remedies, and removed from the individual the sensibility of the pain, through these narcotizing drugs, but surely the next day we would have to repeat the medicine, or else there would be a repetition of the headache, and so on from day to day. Suppose the individual formed the habit of taking the headache remedies, ignoring the fact that there was something that caused the trouble; but intent on getting relief, he continued in the use of these drugs which have to be used in increasing amounts. He would find later on that aside from the fact that these drugs never cured the headache, the medicines themselves had set up disorders of the heart and nerves and upset the digestion, and he would reap a harvest of discomfort and weakness of these vital organs. This serves to illustrate again the great importance of endeavoring in any case to find out what is the cause of the trouble; then seeking to remove it.

Few people, I have found in my extensive experience as a physician

R. & H. PHOTOS

If One Sows Dissipation and Disregard of Proper Food, Rest, and Exercise, He Will as Surely Reap Sickness as He Would Gather Wheat From Sowing Wheat. He May Also Expect to Enjoy Health if He Gives Close Attention to Health Habits

for a number of years, are as much interested in reforming their manner of life to correct a cause of sickness or a weakness, as they are in obtaining a narcotic drug of some kind to make them insensible to existing pain, so that they may go on fostering and cultivating in their body the cause of disease, and depending on heavy drugs to render them unconscious of the disease. Oftentimes I have explained the importance of a change of diet, outlining a well-regulated health program that I felt would surely bring relief, when after listening for a few minutes my client would exclaim, "O, just give me a nerve tonic!"

When a patient comes into my office and says, "I want something for my stomach pain;" or, "I want something for palpitation of my heart;" or, "Give me something to produce sleep," I could very easily meet the wishes of my patient and collect my fee, and temporarily my client would feel that, because he had obtained almost immediate relief, he had met a very successful doctor; but experience proves to many medical practitioners that that patient will be a repeater; he will come back again and again with a stomach pain or will report a sleepless night, and the drugs in the prescription will have to be multiplied several fold, after a while, to conquer these ever-rising pains and discomforts. And someday this patient will come to the conclusion that he is in need of the services of another doctor, hoping that he will find a better prescription. But all remedies and medicines will fail.

Therefore, often to the annoyance of the patient, who very frequently becomes impatient, the thorough doctor insists that a careful examination must be carried out and tests made to search for the cause of the pain and discomfort, for pain and discomfort are not natural things. The healthy man or woman eats well, sleeps well, and feels well all the time. When one has pain, he is diseased, and no one can know or determine the nature or the seriousness of the disease without a certain amount of effort, application, and research. But it is this type of help that the sick in every case should demand, and it is to this type of practice that every conscientious doctor ought to devote himself in behalf of these patients; for this type of work will surely bring success to his practice, and a sense of appreciation and profound gratefulness to his clients.

Every pharmacist and even most of the clerks in the drugstore can give you a headache remedy or a painkiller, and so if the individual simply wants something to render him unconscious of his pain, he need not apply to a physician. The average nurse can learn in a week's time

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Special Diets

Weight-Reducing Diet

A PERSON who has exceeded his normal weight by a number of pounds has some specific cause for such a condition. It may be the result of some glandular disturbance, but more than 90 per cent of overweight is caused by overeating. The amount of food the body requires depends upon its ability to take care of the food and upon the amount of its activity. If more food is taken in than can be utilized in the form of energy, the excess will be stored as fatty tissue; in other words, the person will gain weight. By keeping the intake equal with the output of energy, the body can be kept at normal weight.

There are certain foods that yield a greater food value, or more calories than others. A food that is rich in fat will yield many more calories than one that has little or no fat. For example, an inch pat of butter would have as many calories as approximately two and one-half cups of spinach. The spinach is not only much more filling, but it contains many more minerals and vitamins for the same number of calories.

In like manner a food that is high in carbohydrates will yield many more calories than a food that is low in carbohydrates. For instance, half a cup of potatoes will contain as many calories as two and one-third cups of spinach.

The following diet gives the foods that should be chosen in a reducing diet, which are those that yield the smallest number of calories in proportion to the volume. It should be noted that the protein is not to be restricted at all in such a diet. One should be careful to supply his body with the amount of protein foods needed. These are the tissue builders, and if they are eliminated, the person will have a feeling of weakness and exhaustion.

Soups
- Vegetable soup or broth without fat
- Vegex or Savita broth
- Clear tomato soup

Relishes
- Celery, lettuce, cucumber, tomato, radishes, green onions, and water cress may be used freely.

Vegetables
- Asparagus, Brussels sprouts, cabbage, cauliflower, greens, summer squash, spinach, string beans, and turnips, prepared without fat, may be used freely.
- One serving may be used of the higher calorie vegetables, such as carrots, beets, onions, rutabagas, Hubbard squash, oyster plant, parsnips.
- One medium-sized potato may be used daily if the bread is omitted at that meal.
- A large serving of raw vegetable should be used daily, with lemon juice or with mineral-oil mayonnaise.

Fruits
- All fresh fruits, except banana, avacado, persimmons; served without sugar.
- Fruits cooked or canned without sugar may be used if desired.
- Dried or preserved fruits should not be used.

Breads
- One slice only at a meal; whole-wheat, bran, or gluten.
- If cereal or potato is used, omit the bread.
- Butter, one level tablespoonful may be taken daily.

Cereal
- If used, should replace bread, and should be served with milk. Use only the coarse, whole-grain varieties.

Protein foods
- One or two protein foods should be taken with each meal, to prevent the feeling of weakness that often accompanies weight reducing. Each day take one quart of skimmed milk or buttermilk; one or two eggs prepared without fat; and one of the following:
  - Cottage cheese, 1/3 cup
  - Dried beans, peas or lentils, 1/3 cup
  - Green peas, 2/3 cup

Desserts
- Fresh fruit should be the only dessert used.

Restrictions
- No sweets of any kind should be used.
- Butter, cream, salad dressings, fats, bread, cereals, potatoes, must be used very cautiously, if at all.

The MOTHER'S COUNSELOR

BELLE WOOD-COMSTOCK, M. D.

Questions for this department should be addressed to The Mother's Counselor, Life and Health, Takoma Park, Washington, D. C.

Regulating Four Months' Old Baby

I have a very important question to ask concerning my baby girl. Her stools are very thin. They are yellow and have soft white lumps in them. She is four months old, weighs fourteen pounds, and is twenty-six inches tall. She seems to be all right in other ways. We have tried her without her orange juice, but it hasn't made any difference. She loves her orange juice and cries for it. We are also giving her cod-liver oil, and when the weather is warm enough we put her in the sunshine. If she sleeps over her nursing time, should I wake her or should I let her sleep until she wakes?

Your baby seems to be on a good program. You are evidently planning regular habits for her. This is very important even to waking her up at feeding time. In this way, she will form the habit of waking at the proper time.

If your baby is making a normal gain; if she is not fretful; if the stools do not cause irritation of the buttocks; if her bowels do not move more than three times a day, the condition of loose stools to which she is subject need not be a matter of anxiety. If her nutrition is being affected or if there are signs of local irritation, then the matter becomes a much more serious one. When a baby is breast-fed, it is often difficult to make a great deal of adjustment in the mother's milk, and we do not worry about such stool irregularities as we do with bottle-fed babies.

However, there are two or three things to consider carefully. What is your own state of health? And is your diet what it should be?

A normal diet program for you would be about as follows: *Breakfast*—Good serving of fruit, either raw or stewed or both. Cereal in moderation and chosen from the following: toast, bread, rolls, muffins, mush, porridge, dry breakfast cereals, rice, etc. Butter on breadstuffs should be used very sparingly, and whole milk rather than cream should be used on breakfast cereals. You should use at least one glass of milk at this meal; an egg may be added if desired. No sugar should be used on cereal. Honey may be used on toast or bread if desired. *Dinner*—Vegetables freely, both raw and cooked. Milk or milk products, as cottage cheese, buttermilk. Bread or dessert, but not both. Starchy foods should be somewhat limited. For instance, if potato is served, macaroni or rice should not be included in this meal. *Supper*—Fruit. Simple hot dish, such as, soup, or milk toast, or rice, or corn meal mush or gruel, with perhaps some other simple food that has a particular appeal, and milk to drink. This list is not meant to be arbitrary but just to give an idea of the foods that are needed. Fruit, vegetables, and milk should be used freely, the milk with or without the cream, depending on mother's weight and baby's digestion. It would be well for the mother to drink some orange juice between meals, and an extra glass of hot skimmed milk at bedtime might be beneficial.

As far as the baby's food is concerned, if careful adherence on the mother's part to the above plan does not help the situation, it might be well to supplement mother's milk by giving the baby, before nursing, two or three ounces of skimmed milk diluted with about half as much water and boiled for three minutes. This boiled milk mixture may serve as a helpful diluent if the mother's milk seems a little too rich. The baby's orange juice should be continued unless tomato juice is given in its place.

Deformed Tooth

I am troubled about my little girl's teeth. Last June when she was only four years old, one of her teeth began to loosen and came out. Some thought it had been caused by an accident in her play, but I don't know of any such accident. Three or four months later another tooth came through, but it was turned around, so that it ran from back to front instead of facing the front of the mouth. I asked a dentist if he thought that the reason the tooth was crooked was because we did not take the loose tooth out soon enough. He said, "No. It is just a deformed tooth." After it came through sideways, it continued growing in width, so that it now looks like a double tooth. She is only five years old and she reads quite readily.

The fact that your child is precocious need not be any need for worry, and the early loosening of teeth sometimes happens to very normal children. The question of the crooked tooth is one that will need to be settled by a dentist who makes a specialty of straightening teeth, an orthodontist. Much can be done these days toward correcting abnormal conditions in tooth development. Your dentist was quite right in telling you that your failure to pull out the first had nothing to do with the deformity of the second.

You have an interesting responsibility in having a daughter that is so alert mentally. It is of great importance that she be given every opportunity for development, both nervously and physically. Be careful not to make her self-conscious in any way, but let her develop in as natural and carefree a manner as possible. Worry and anxiety on the parents' part should never be evident to the child. So do not let her hear herself discussed, or allow her to feel that she is at all different from other children. With an environment of happiness and confidence, she should be a great joy to you.

Use Common Sense in

TRAINING YOUR CHILD

•

by Irene B. Watt, R.N.

WITH babyhood successfully passed, the parents give less thought to the child's care, or perhaps turn him over to an ignorant servant, not realizing the importance of the preschool years in which the brain and nerves are undergoing a much more rapid development than at any subsequent period—the most important period of his life.

For the average child the most valuable things during these formative years are the habit patterns laid down in the nervous system. To many the word "habit" connotes the undesirable. One has only to call to mind the innumerable habits upon which the routine of living depends—from walking to the use of the multiplication table—to realize the part they play in life and the value of forming good ones. They serve to free the mind and attention for new and more interesting accomplishments. This is one of the outstanding values of regularity in those physical activities necessary to life.

A little child is very suggestible and a born imitator. No other method of training produces quite such good results as the example set before him by parents and others with whom he lives, if their example is good. Contrariwise, other methods are likely to be futile if the models he has to copy are poor.

Doctors say that patients complain to them of disturbances of digestion and sleep more than any other bodily functions, and that the difficulties can usually be traced back to poor childhood habits in these things.

Curiously enough, the new emphasis on nutrition seems to have been followed by an increase of behavior problems concerned with eating. What a variety is brought to the clinic: one child refuses to eat, another dawdles over his dinner, this baby has to be fed, a five-year-old vomits her food, and a four-year-old boy will not drink milk. Mother is usually all anxiety, and in a distressed tone recounts to the doctor—before the child, of course—how Johnny won't eat cereal and Mary refuses spinach. It seems a major problem, but the major part of it usually proves to be the parent who is the one most in need of reeducation. After that, the child's reform is comparatively simple.

It cannot be too much emphasized that constant attention to Johnny and Mary while they eat,—nagging, threatening, insisting, bribing,—only increases the difficulties. The cause behind the child's attitude must be discovered and remedied.

In the first place, the parent should have some idea of what is an adequate diet for a child. Recently a little five-year-old was brought to the doctor. Her mother complained that she objected to food, especially cereal, and that she vomited frequently. Questions and examination revealed that the little girl was twenty pounds overweight, and had a mild gastritis because the mother, in her concern for the child's health, had been actually stuffing her.

A normal, healthy, active child is hungry and will eat if a few simple rules are followed: Serve meals regularly and give nothing between; if food is refused, serve no more until the next meal; give a reasonable time in which to eat, then remove the food; serve one dish at a time with not too large a quantity, to be eaten before the next dish is served; serve the dessert after the rest has been eaten. Treat the whole situation in a matter-of-fact way, expecting the child to eat, and showing no concern if he does not. Vary the

(*Continued on page 28*)

The Atmosphere of the Home Is Reflected Even in the Child's State of Health

H. A. ROBERTS

For Boys and Girls

BY Veda S. Marsh

Four Banty Chicks

JOAN and John were swinging under the big oak tree in the side yard when Daddy Monroe drove into the yard. Almost at the same moment that Daddy Monroe drove in, the twins jumped and ran to meet him. John reached the automobile first.

"Well, little Jays," said Daddy, "which one of you has the best report tonight?"

"We have both been very helpful today, Daddy," said Joan. "John mowed the lawn, and we both raked it and picked up all the loose papers. Don't you think it looks nice?"

"Yes, it surely does, and I have not forgotten the surprise I promised."

"Oh, tell us what it is, Daddy!"

"See if you can guess what it is. Joan, you may be the first to guess."

"Is it alive?"

"Yes."

"Now, John, it is your turn."

"Is it a dog?"

"No."

"Is it a cat?" asked Joan.

"Or a monkey?" called John as he ran over to the car hoping to get some clue that would help him guess what it really was.

"Oh, I know, I know," he called.

"It isn't fair to peek," said Joan.

"I didn't really peek. Come here, Joan. Now listen! What do you hear?"

"Oh," squealed Joan, "it is something going peck, peck, peck. Chickens!"

Daddy laughed.

"You are getting warm. It is four Banty chickens."

By this time the twins had the box out of the car, and were peeking through the slats at the trim little Banties. Mother had come out of the house to see what was causing all the excitement.

"O Mother, come and see our Banties."

"Well, well; and where are you going to house your farmyard pets?"

"Oh, Daddy will help us find a place!"

Daddy smiled and gave a knowing wink to the twins. He started around the garage with the twins close at his heels.

"I thought we could fence off this plot behind the garage with chicken wire, and make a chicken coop out of the old piano box. The chicken wire will be delivered this evening, and we shall be ready to begin building at seven in the morning. I shall need two helpers. Who will volunteer?"

"I will," "I will," eagerly said Joan and John.

The twins were up bright and early that beautiful August morning. They were so excited they could hardly be persuaded to sit down and eat a good breakfast. The Banties had been given food and water, and seemed quite contented even though they were in such close quarters.

What a hum of excitement there was as the work progressed—sawing, hammering, and digging all going on at the same time.

A door large enough for the twins to go in and out through, was made at the back of the piano box. An old window was found in the garage and put in one end of the box. Roosts were built in the opposite end, and a small opening was made where the chickens could go in and out as they pleased.

A trench was dug around the yard, and the chicken wire was buried about a foot, so that the chickens or other pets they might get, could not dig or burrow out.

At last it was time to allow the Banties to inspect their new home. Proudly the rooster led the way, and the twins had many a laugh as they watched him strutting around, peering in all corners, and getting up on the sawhorse they had been using, to crow his approval. He was so tiny and his crow was so big, that it really shook him off, and he had to fly to the ground to save himself from a fall.

Soon he found that one end of the sawhorse touched the garage. How surprised Joan and John were to see him walk to that end, lean over, and balance himself against the garage, and then crow long and lustily.

It was a tired and hungry group that came in to supper that night, but after a good bath and a hearty meal, they all felt very much refreshed.

The twins were a little reluctant to go for a ride. They were afraid their new pets would be lonesome, but Mother and Daddy both assured them that the Banties would enjoy inspecting their new quarters alone. When they returned home after dark, Daddy was persuaded to take the flashlight and go out to the piano-box chicken coop with the twins, for the last inspection of the day. How happy they were to find the four Banties peacefully sleeping on their perches.

Mother suggested that the twins follow the example of the chickens, and "go to bed with the sun."

The Body Machine

(*Continued from page 11*)

der of the alimentary tract. However, the food is reduced to comparatively simple substances which pass through the small, fingerlike projections from the walls of the intestines and finally enter the circulation.

The blood carries these elementary food substances to the various structures of the body, which retain what is needed for their growth, repair, or the production of heat and energy. The excess food is changed in form and stored for future use.

In order for the food substances to be properly used in the cells, oxygen is required. This is taken into the lungs by the action of the muscles. Here it passes through a very thin layer of flat cells, and is taken up in the blood. Of course it cannot go to the tissues as a gas; so it is combined with the hemoglobin (the red coloring matter of the blood) in the twenty-five trillion red blood cells, and so carried to the tissues for use.

In any vital process, waste substances are formed. Their removal is provided for in the body as the blood carries them to the kidneys, where they are removed and passed from the body as urine. The waste gases pass back to the lungs, where they are breathed out of the body.

The blood has other very important work to do, such as the fighting of diseases in the body. That organ, the heart, is the most efficient pump in existence, beating over two billion times in an average life. Each day it does work equivalent to raising one ton to a height of 120 feet. The blood is pumped through a vast network of vessels which have been estimated to aggregate—now what do you think?—970 miles.

The male germ cell is approximately 1/500 of an inch in size. It is inconceivable how the characteristics of a parent may be transmitted to the offspring in a cell of that size. But not only is that so, but we know that these characteristics are transmitted from generation to generation, and that according to mathematical law.

However, the crowning system of the human body is the nervous system. This is the telegraph system of the body, receiving impulses and transmitting them to all parts of the body, thus causing them to work in unison. The marvels of this system alone could hardly be told in the space allotted to this article. Think of the eye, which receives light so that we can see. Think of the ear, by which we hear. And the sense of touch, of hot and cold. But the highest function of the nervous system is the mind, by which we think, remember, love, and plan.

Many people feel that they cannot understand how God could create a world and make a man out of the dust of the ground. Neither can I. But I can come nearer understanding that, and supporting it by facts I do know, than I can understand any other explanation for the facts as we find them.

Evolution makes no claim to explain the origin of matter. It simply attempts to tell how this matter came into its present form and to have its present characteristics.

Now, I have never seen an airship built nor had the privilege of closely examining one. But if I did have the privilege of such an examination, when I saw the fabric, the metal work, the compass, the radio, and saw the propellers revolving, what would be my conclusion? Would I think that some iron from Minnesota and some coal from Pennsylvania got an affinity for each other, and that the iron just got above the coal, which somehow got hot and caught on fire, thus heating the iron, which finally evolved into steel, which happened to fall into a hole in the sand and got molded into the form of an engine? Would I believe that all the other parts and delicate instruments somehow happened to come together in the same way?

No, I would believe that some person possessing intelligence had taken these substances and used them in the construction of the airship. And the fact that I could not explain the action of the radio equipment would not cause me to say that it had just evolved, but rather it would cause me to acknowledge that the maker was wiser than I.

So it is with the human body. When I see more of its wonders which I cannot explain, I am forced to the conclusion that it is the product of an intelligent God who knows more than I do. The more wonderful the mechanism, the more positive am I that it is not the product of chance, but rather of the infinite skill of the Maker.

How could lifeless, unintelligent matter of itself ever change its form, and so become that wonderful organism—the human body? Men's best efforts to take the elements and form a human being have only resulted in the robot. Would we conclude that it would take a higher intelligence to make the human body, or an absence of intelligence? Naturally the conclusion must be that it would take an intelligence as much higher than the human mind as the human body is higher than a robot. And the Being having that intelligence is God, the Creator of all things.

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Skin Blemishes

(*Continued from page 13*)

susceptibility to a foreign substance can cause not only hay fever and asthma, but also such common skin diseases as hives, and infantile and adult eczema. Among the substances which may cause such troubles are food, medicines, serums, animal extracts, such as horse hair, cosmetics, soaps, clothing, pollens, dust, and sunlight.

Acute fevers, such as scarlet fever, typhoid, Rocky Mountain spotted fever, and many others, may cause eruptions. In addition, practically all can cause loss of hair. In fact, the skin is simply one of the organs of the body, and can readily be affected by any abnormal condition of the general system. Hence it is obvious that any measures taken to improve the general health are advisable in the treatment of skin diseases.

Both the skin and the hair must be kept reasonably clean, preferably with soap and water. They should not be subjected to irritating substances of any kind, nor should they be exposed unduly to heat, cold, moisture, dryness, sunshine, or electrical discharges, to say nothing of a thousand and one local irritants, such as ink, strong chemicals, plant poisons, excessive amount of soap and water, and infection.

Varying conditions of the skin naturally demand different types of care. The blonde, or the sandy-haired, freckled individual will sunburn much more readily than the brunette. The dry-skinned person should avoid heat, sunlight, drying wind, a dry climate, and even the superdry climate of the average American home or office building. Proper air conditioning will some day prove a great boon to the greaseless-skinned individual. Long sun baths will sooner or later age any skin. Too much soap will make the dry skin dryer. Rumble-seat riding is intended for the greasy-skinned brunette. Cold cream, or even a more oily preparation, may be allowed the freckled girl.

The FAMILY PHYSICIAN
• ANSWERS QUESTIONS •

We do not attempt to diagnose or treat disease by mail, or to take the place of your family doctor. Always enclose three-cent stamp with your question, and address Query Editor, **Life and Health**, Takoma Park, D. C. The services of the Query Editor are restricted to bona fide subscribers. Only questions of general interest are answered on this page—all others by correspondence. Please be brief.

Drink Habit

"Please give a formula for overcoming the drink habit."

I do not know of any such formula. The only formula for overcoming the drink habit that I know of is for one to set his will and heart and mind against the evil, and through the grace of God refuse to yield to it. There is no substitute for will power, and that is the only force through which the habit may be conquered, whereas medicines or potions will avail but little. The diet should be of fruits and vegetables and milk, and free from flesh foods, pepper, salt, mustard, horse-radish, and all other strong irritants. Abstinence from smoking will also help to overcome the drink evil.

Constipation

"I am almost seventy-six years of age, and have been quite constipated for years. I seem to be getting worse, though I am particular with my diet. What do you advise?"

The fact that you are getting along in years and probably not quite so active as you used to be, is no doubt a partial cause for your trouble. Would advise you to drink eight glasses of water a day, along with taking mineral oil and psyllium seed. You may prefer the latter in the powdered form. Be sure to get plenty of bulky vegetables. Bending exercises, such as would exercise the abdominal walls, would be helpful. However, you cannot be overstrenuous about this. Outdoor sunshine and mild work in the garden might be beneficial.

Prostate Trouble

"Could you give me any home treatment for prostate trouble that might help?"

I would suggest hot sitz baths. Fill your tub half full of hot water and sit in it about twenty minutes. This will give you the effect of a sitz bath as well as a hot foot bath. Finish with a dash of cold. Prostatic enlargement may be either benign or malignant. You should, therefore, keep in close touch with your physician. Operation, general health permitting, is the method of choice in most of these cases.

Adding Height

"I am twenty-seven years old, five feet two inches tall, and would like to be two inches taller. What can I do to add these inches? I see certain courses advertised in the magazines for increasing height. Are they any good?"

There is no way that it can be done. Eat good food, get plenty of rest, and get outdoor exercise, and leave the rest to nature. By standing as tall as you can, you may stretch your height about an inch. Most people slump. There is nothing to the advertisements to which you refer unless it be in getting a person to stand up straighter.

Gray Hair

"What can I do for gray hair?"

Let it turn gray. I know of nothing else to do for it. I cannot advise dyeing the hair. If it is gray prematurely, it may be due to a disfunction of the thyroid. Of course there are hair dyes on the market for coloring the hair, but their use is not advisable. Gray hair is not a disgrace.

Cold Showers

"Can everybody take cold showers without detriment to the health?"

There are some people who cannot take cold showers with benefit. One whose resistance is so low that he cannot react well to the cold, and becomes blue, is certainly not a fit subject for a cold bath. However, even such a one might gradually work up to taking moderately cool or cold showers by first taking a hot one. After a while his tone might improve. Cold showers are tonic and help build resistance.

Cucumbers and Onions

"Is the combination of cucumbers and onions harmful?"

There is no particular harm in the combination of cucumbers and onions, although to some people both of them are difficult of digestion, either in combination or singly.

Hyperinsulinism

"Kindly explain what hyperinsulinism is and how it affects the health."

This is a condition in which there is an overgrowth of the islet tissue of the pancreas with the production of an oversupply of the insulin or gland extract that burns up sugar in the body. This overoxidation makes the blood-sugar level too low, and in some people causes convulsions, fainting spells, unconsciousness. The doctor would have to differentiate from uremia, epilepsy, etc. Symptomatic treatment includes taking, at frequent intervals, some readily available carbohydrate, which gives the excessive gland secretion fuel on which to work. Real cure is obtained only by operative removal of the excess gland tissue.

Fountain Drinks

"Is there really danger in soda fountain drinks?"

Many popular drinks contain drugs, such as caffeine and cocaine, which are dangerous. Their habit-producing effect is one reason for their large demand. Artificial colorings, synthetic flavorings and sweetenings, make them still less desirable as beverages. One needs to be rather choice in making selection at the average soda fountain. Another factor now being emphasized is the danger of disease contamination through what may be almost common drinking cups or glasses. Methods of dishwashing at some fountains, as well as in some restaurants, permit of much health hazard. Common colds and a number of diseases are easily transmitted through dirty dishes and glasses.

Sleepless Rest

"Is there any benefit in lying in bed thinking about many things and not sleeping? Might not one just as well be up and around?"

It is said that an hour's rest and relaxation in bed is equivalent to half an hour's sleep. This, of course, means that you must have real relaxation, and does not apply when one is restless, nervous, and vexed because he cannot sleep. Often, worrying about not sleeping does more harm than the sleeplessness itself.

Rheumatic Arthritis

"I am greatly troubled with rheumatic arthritis. Do you think an adjuster for the muscles or nerves would help me? What about chiropractic treatments?"

I do not think that any adjuster would help you, nor do I think chiropractic treatments would be of any value. You would simply be wasting your money. You should have a thorough examination by a competent medical doctor, and treatment. If teeth and tonsils are bad, they should have attention. Diet and remedies would also depend on the findings of your doctor.

Spotted Skin

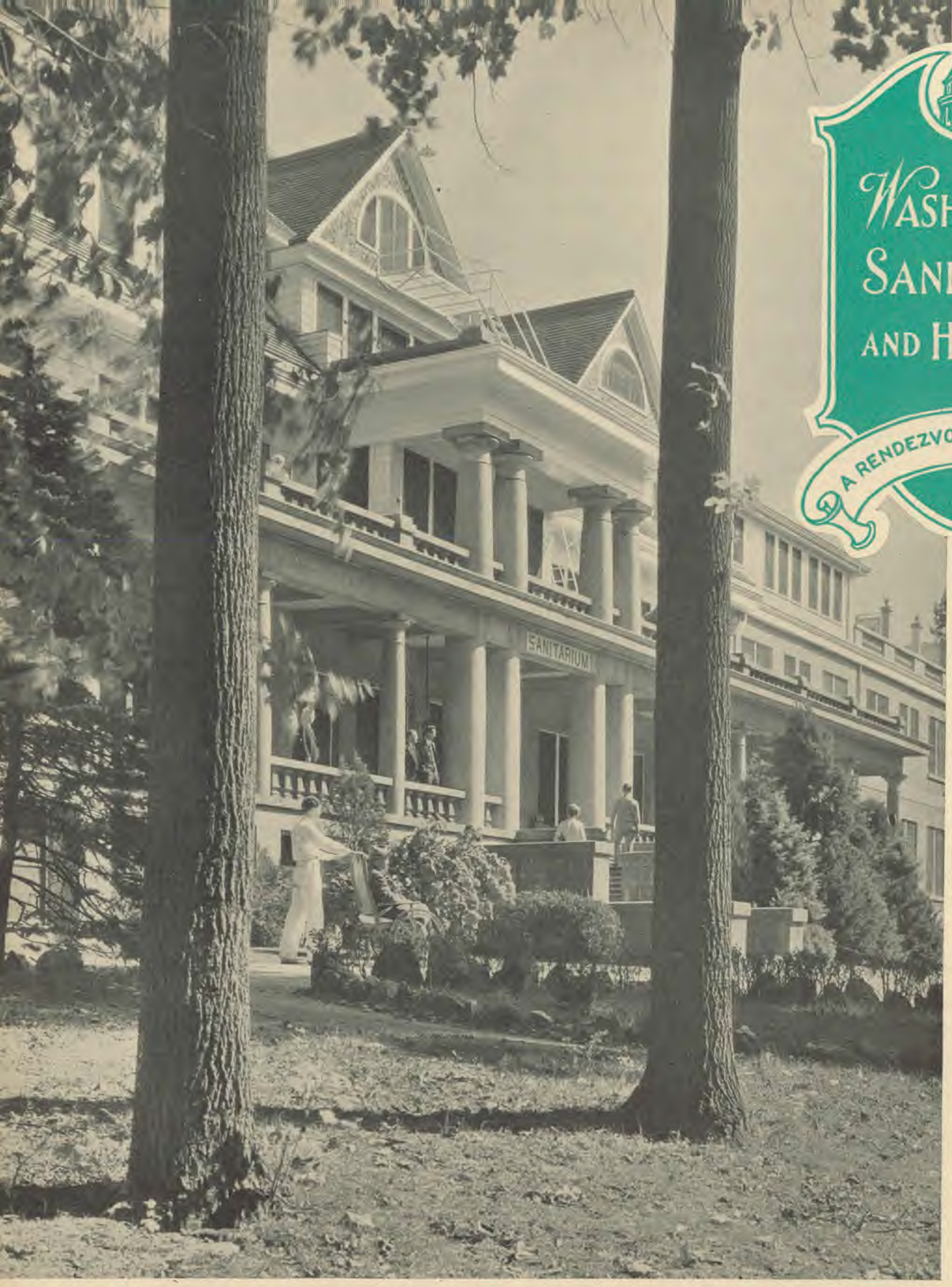
"My skin turns white in spots. It began first on my hands and legs, and now it covers my body. I am told my system lacks iron. What do you say?"

You are troubled with vitiligo. Lack of iron has nothing to do with this. For some reason or other the pigment of the skin disappears in certain places and increases in other places. This is exaggerated by the tanning of certain parts in the summer, while other places do not have ability to pigment at all. Walnut hull stain applied to the affected parts to give an even coloring is about as helpful a suggestion as I can make. Gold and sodium thiosulphate intravenously has been favorably reported in a few cases.

Starches and Protein

"Is there any scientific basis for the statement that we should not eat starches and proteins together?"

The advice against eating starches and proteins at the same time is of recent origin among some of the so-called diet experts. It seems foolish in the face of the fact that nature combines starches and proteins in many of our foods, and that it is impossible to eat three meals a day without eating starch and protein in combination. There is absolutely no scientific reason for not doing so.



Rest is essential in these days of high-tension living and mental strain. The human body is not built for perpetual motion. Long, steady application at any one task, however pleasant it may be, is wearing on the nerves and debilitating to the health; the body resources are used up, and there is fatigue, lack of vitality, irritability, and—a break. Rest then is compulsory, expensive, and sometimes too late.

Wisdom suggests that proper rest be taken in time, in an environment conducive to health, and where efficient medical care may assist the natural resources of the body to recuperate.

FAVORITE Recipes

of Sanitarium CHEFS

Dream Salad

(6 servings)

2 bananas diced
1 cup dates chopped
15 marshmallows diced
1 cup whipped cream

Mix all and serve on lettuce leaf.

MRS. MINNIE LYON,
Iowa Sanitarium.

Avocado Sandwich

Peel and take out seeds of six avocados. Put through the ricer, add two tablespoons lemon juice and three tablespoons mayonnaise. Spread on thin slices of buttered bread.

CARL JOHNSON,
Glendale Sanitarium.

Corn Bread

(5 servings)

1 cup cornmeal
¾ cup bread flour
1⅛ tbs. oil
1 tsp. sugar
Pinch of salt
2 eggs, separated
1 cup boiling water

Sift cornmeal and flour together. Scald meal and flour with hot water. Add yolks, salt, sugar, and oil to scalded meal to make a batter. Fold in the stiffly beaten whites. Place in buttered pans that have been heated. Bake in a moderate oven forty-five minutes.

E. HALIFAX,
Loma Linda Sanitarium.

Nut Loaf

(10 servings)

½ cup English walnuts
½ cup pecan meats
3 cups cold potatoes
⅔ cup chopped celery
½ cup shredded onion
½ cup rolled oats
⅓ cup cracker crumbs
1 tsp. Savita
2 eggs
1 tbs. butter
1 tbs. Crisco
1 tbs. chopped parsley
¼ tsp. sage
Salt to taste

Grind nuts, potatoes, and rolled oats. Simmer onion in the fat until tender; add Savita, then add the eggs and scramble until firm (chop quite fine). Mix all ingredients together. Form into a loaf, and bake one-half hour, brushing frequently with mixture of one teaspoon Savita, one-fourth cup milk, and one tablespoon flour. Nice served hot or cold with cranberry sauce. Makes delicious sandwiches.

MYRTA CORNOR,
Washington Sanitarium.

Carrot Loaf

1½ cups grated or ground raw carrots
1 cup boiled rice
1 cup peanut butter or ground peanuts
1 egg
2 tsp. red or green peppers
2 tbs. melted butter or oil
1 tbs. minced onion
Salt to taste

Mix ingredients in order given, and bake the loaf in a moderate oven one hour. Serve with a tomato sauce.

FRED P. KOHLTFARBER,
Wabash Valley Sanitarium.

Colorado Cake

(16 servings)

½ cup oil
½ cup water
1 cup sugar
4 eggs
1 cup white pastry flour
1 cup whole-wheat flour
¾ cup raisins
½ teaspoon salt
Few drops almond
Few drops vanilla

Put oil in bowl, add water slowly, beating constantly until thick and creamy. Add egg yolks, ½ cup sugar, salt, flavoring, flour, and raisins. Mix thoroughly. Beat whites of eggs stiff, add ½ cup sugar, beat again, add mixture to beaten whites and fold very carefully, not too much. Bake in slow oven. Ice with brown sugar icing.

FRED T. FEUTZ,
Boulder Sanitarium.

Prize Lemon Pie

(1 pie)

⅓ cup flour
1 cup sugar
¼ tsp. salt
2 cups hot water
2 egg yolks
1 tbs. butter
⅓ cup lemon juice
Grated rind of ½ lemon
2 tbs. powdered sugar
2 egg whites
Baked pie shell

Mix together flour, sugar, and salt. Add the water gradually, stirring constantly to prevent lumping. Cook over boiling water until thick, continuing to stir. Remove from fire, pour over beaten egg yolks. Add butter, lemon juice and rind, and mix well. Pour into baked pie shell. Cover the top with a meringue made by beating powdered sugar into stiffly beaten egg whites. Bake in a moderate oven until brown.

OLIVE JENKINS,
Walla Walla Sanitarium.

Fruits and Vegetables

(Continued from page 14)

yolks, but more vitamin A is needed than these foods can provide in the average diet. The green and yellow vegetables and fruits contain it, however, and are valuable for this, among other reasons. Many vegetables furnish more or less vitamin B, but fruits are not such good sources of this vitamin. Vitamin C is found chiefly in vegetables and fruits, and cannot be adequately provided in any diet without them. For vitamin G, again we turn to certain vegetables, in addition to milk, cheese, eggs, and some other sources.

Fortunately, our cheapest vegetables and fruits, as a rule, are just as nutritious as the most expensive, sometimes more so. For the widest variety of food values in one vegetable, we look to the legumes, the bean family, fresh or dried. Fresh green beans and peas contain more of the vitamins than the dried ones—they are good sources of vitamins A and B, and contain some vitamin C. But beans and peas of all kinds, fresh or dried, are notable for their protein and fat. The protein of soybeans is the most "efficient" of all vegetable proteins. All the legumes are rich in iron—limas, lentils, common or kidney beans, cowpeas, and common peas. Soybeans, as is well known, are valuable in diabetic diets because they contain comparatively little starch or other carbohydrates—about half as much as other beans and peas, and only 40 per cent of that is available for use by the human body.

Potatoes and sweet potatoes, our two great staples among the root vegetables, are for practical purposes almost interchangeable in the ordinary meal. Their composition is not the same, but both are used to give "substance" to the menu, both are good energy foods rich in carbohydrates, and both furnish some minerals and vitamins. The white potato has more iron than the sweet, but the latter is a good source of vitamin A, which the white potato lacks. The sweet potato has more sugar, which is one reason it is good combined with fruits or made into pie. It is also a better source of vitamin C than the white potato. The white potato, however, has more varied uses for the table,—in soups, stews, and salads, as well as cooked for itself alone,—and so makes an important contribution, even of vitamin C when baked in the skin.

Carrots are one of the most important roots, because they, like sweet potatoes, are an excellent source of vitamin A. They furnish a little vitamin C and some minerals (not much iron, however, despite their color), and they are the more useful also because they are so often eaten raw, thus contributing all of their best food values.

Turnips, too, are eaten raw, in salads or cut in celerylike sticks, thus giving full benefit of their vitamin C, which is the chief contribution of white turnips to the diet. Yellow turnips and yellow squash contribute vitamin A. Squash and pumpkin furnish a little vitamin C.

Of the succulent vegetables (or fruits), tomatoes are the most important. They are richer in vitamin C than any other vegetable, and because of their acidity, they retain more of this vitamin when cooked or canned. Tomato juice (poured off from cooked or canned tomatoes) is the cheapest preventive of scurvy for babies, and doctors and nutritionists recommend daily feedings of this or of orange juice.

Cucumbers, radishes, onions, and all the vegetables eaten raw contribute some vitamin C; hence the dietary importance of raw salads.

The leafy vegetables are so important for their minerals and vitamins that nutritionists advise at least one and preferably two such vegetables every day, one of them raw, to avoid any loss of food value by cooking. All the leafy vegetables furnish more or less calcium, phosphorus, iron, and all the vitamins except D, which is not found in the vegetable kingdom. The greener the leaves, the more iron and vitamin A they contain.

Cabbage, usually the cheapest leafy vegetable in Northern markets, is valuable for its vitamin C, particularly because we use so much cabbage, both raw, in coleslaw and salads, and cooked in many ways. Collards, a Southern member of the cabbage family, and kale, turnip tops, beet tops, spinach, mustard, dandelions, escarole, water cress, parsley—all the green leaves, in fact—are high in calcium, iron, and all the vitamins except D.

This brings us to the fruits. All the fruits have some mineral and vitamin value, but in general we count upon them chiefly for vitamin C, and in some cases, iron and vitamin A. The citrus fruits—lemons, oranges, grapefruits, and tangerines—are our richest sources of vitamin C; but strawberries, gooseberries, raspberries, cherries, currants, pineapples, peaches, bananas, avocados, guavas, and mangoes are all good sources. Watermelons are good; and cantaloupes, an excellent source of vitamin C, furnish also vitamin A. So do bananas, avocados, dates, cherries, and olives, ripe or green. But apricots, mangoes, prunes, and yellow peaches are the best fruit sources of vitamin A.

Apples have an important place in our diet, largely because we use so many that their nutritive values count up to a larger total in certain respects than is furnished by some of the less common but more expensive foods. They have some mineral and vitamin values (vitamin C especially). One gets the most of those values when he eats apples raw, skins and all. Like many other fruits, apples furnish a mild roughage.

Dried fruits, especially attractive in wintertime dishes, have most of the food value of the fresh fruit, especially the minerals and vitamin A. Dried apricots, peaches, dates, prunes, and raisins, are also good sources of iron, and they have a mildly laxative effect.

The mineral and vitamin values of cooked or canned fruits and vegetables depend largely upon how they are cooked or canned. There is always some loss of vitamins B and C, but in home kitchens this can be minimized by cooking a short time at the boiling point or just below, and serving at once. Potatoes or sweet potatoes baked in their skins, and foods baked in a casserole, retain their vitamin values better than when cooked otherwise.

To avoid loss of mineral values, cook vegetables in as little water as possible and use the liquid. If there is too much to serve with the vegetable, it can often be used in soups or sauces.

When it comes to the actual planning of meals, week in and week out, we find that we need for a well-balanced diet pattern at least two or three kinds of vegetables and a fruit or two every day. Potatoes, sweet potatoes, beans, or peas supply the most "substance" for a main vegetable dish, but not enough minerals and vitamins. Therefore each day's menu should include also at least one leafy vegetable, or a succulent one, and preferably also a raw one, all of them selected with an eye to attractiveness of the whole plate in flavor, color, and texture.

The breakfast fruit, and the fruit cup or tomato-juice cocktail at lunch or dinner are a convenient and appetizing means of ensuring enough vitamin C for the day. Salads can be made to serve the same purpose, and to provide vitamin A also. This is true also of fresh fruits or melons served as dessert.

These dietary teachings, based upon nutrition studies and discoveries of the last quarter century, and carried over the country by home economists and dietitians, have changed the meal patterns of a great part of our population. This fact is evident in the expanded acreage of market gardens in recent years, and the vastly increased shipments of green vegetables and some of the fruits. Better diets for more people should mean, in time, a healthier nation.

* * *

Aches and Pains

(*Continued from page 18*)

the use of a hypodermic, and the measured dose of opiates and narcotics that need to be given in order to produce sleep in the sleepless, and to annihilate pain in the suffering.

But to ferret out the cause of pain, and to find ways and means of eliminating the cause and of clearing the pain by the eradication of the disease itself, is the true work of the physician. And to be a master at the profession requires years of painstaking effort, voluminous research, and wide experience. Therefore the sick man's first question should be, What caused my trouble? or, What is causing my pain? And his second question and his continual anxiety and interest should be, How can I get rid of the cause?

If a person is suddenly taken with an attack of gallstone colic, relief from the distressing pain should naturally be the demand and anxiety of the suffering patient. One of the first questions that the doctor will ask the patient is if he has had any severe or infectious disease in his life, particularly if he has had typhoid fever; and if the response is in the affirmative, then the cause of the gallstones will be clear, and also the probable nature of the inflammatory condition resulting in their formation. As long as the gallstones are there, repeated attacks of such colic are very probable, and instead of repeating sedative measures for overpowering the pain, the physician suggests immediately the removal of these stones.

Pain is associated with fear, something that every one desires to escape; and because of their dread of it, people frequently come to regard it as a great enemy, and wonder why we were ever made with a nature that could suffer pain. But after all, pain is truly a blessing. It oftentimes is the first signal to us that there is something wrong, that a disease is present. It is like the danger signals to motorists on the highways. Any one may know what would surely happen to the motorcar driver who disregarded all traffic signals and regulations, rushing recklessly along the highways. Even so with the person who hurries along the highway of life, disregarding all the warning signs of pain or obscuring them with drugs.

Suppose a person came down with appendicitis, and there was no pain to it. The inflammation that ordinarily gives rise to pain and leads to a quick diagnosis, thus saving life, would, in the absence of pain, rapidly get worse, with finally a rotting of the bowel, perforation of the intestine and leaking of its contents, and general peritonitis; and the individual would die without ever having had the opportunity for a cure. So pain or discomfort calls for reformation in the life. The slightest pain should give rise to anxiety. A neuralgic ache, or even a dullness or blunting of intellect, a sense of depression, and feelings of heaviness and stupor are all that is needed to call us to seek a clearing up of the slightest embarrassment in our natural faculties.

All sickness and death are a result of five distinct causes. The first perhaps, and one that plays a very important part in most cases, is insufficient nutrition. Every living cell and every tissue and organ of our body must have a requisite amount of fuel for work maintenance, and also must have sufficient food material for the restoration of the diseased tissues.

When every cell of every organ and tissue is well nourished, the body usually functions well. A well-nourished brain is a good-thinking brain. Well-nourished muscles have great working possibilities. A well-nourished heart works long and efficiently. Deprive these organs of nutrition, and they weaken and become susceptible to disease and disorders.

The second cause of sickness and death is the influence of poisons on the tissues of the body. These poisons may be produced within our body as a result of work and fatigue. It may be that they are produced faster than they can be properly thrown off by the organs that have to do with their disposal, or they may be poisons introduced into the body through poisonous things taken in the food and the diet. Anything that is a poison is not a food, and anything that is a food is not a poison. These poisons may come from among the disease-yielding bacteria of which there are some 50 or 60 varieties now known, or they may come from other plant sources or from mineral origin. In any case, it is a poison that paralyzes the activity of the cells, and eventually ends their existence.

The third cause of death of the human being is the extremes of heat and cold. Our bodies are made to function within a certain given temperature range of about 10°. Any temperature above 105° or below 95° is usually destructive to the action of the cells and tissues of our body, and if the entire body temperature were maintained at such extremes for any given period, it would soon cease to function, and thus life would be extinguished. Burns, heat exhaustion, heat stroke, freezing, and all severe climates, either extremely hot or extremely cold, tend to produce functional disturbance of the organs of our body, and finally to cause the cessation of life. Insufficient clothing and improper housing fall into this classification.

The fourth cause is mental influences or environment. We know the effect of depressing influences on the functions of our body—how grief stops gland function, and joy exhilarates. Beyond all things a Christian influence is healthful because it contributes hope, repose, confidence, and satisfaction; whereas the absence of it breathes depression, lack of confidence, discouragement. And when one enters into a general state of depression, the ultimacy of which is annihilation of all mental influences and psychic reaction, death soon follows.

The fifth cause of disease and death is mechanical injuries, such as blows or falls, by which the tissue and organs of the body are mutilated through coming in contact with destructive physical forces of whatever nature.

All the causes of sickness are listed within these five classes. Some are very easy to distinguish while others are hidden and very elusive.

Therefore, every cause of sickness,

resulting finally in death, must be found within the realm of these five primary causes. Of first importance, is the prevention of sickness, which necessitates our being careful of our health habits and living a hygienic life, realizing that we reap good for all that we do that is health yielding, but we reap disease as a result of transgressing nature's laws, even though our constitutions may carry us for many years before the results of the transgression make themselves manifest to us.

If we fail in preventing disease, and pain overtakes us, we must first search for the cause, then remove it, and finally restore the damage that has been done.

To conserve health, even the person who feels well needs periodically a careful checkover, for so many diseases go on to great stages of severity before pain manifests itself. Cancer of the stomach reaches an incurable state before one has sensed any appreciable discomfort. The same is true of Bright's disease and certain other maladies. Therefore, it is important that every person, man, woman, or child, inform himself concerning a proper diet and a well-regulated health program, and seek an early physical inventory, with a repeated checkup at regular intervals by a well-qualified clinic or through the services of a competent medical man if he would safeguard his life.

* * *

Training Your Child

(*Continued from page 20*)

foods from time to time to avoid monotony and to ensure getting all the food elements; introduce new foods gradually, in small amounts at first, to get the child to acquire a taste for all wholesome food.

It is important that grownups refrain from discussing their likes and dislikes before a child, and that they do not give him tastes of foods that are not included in his diet. If he eats with the rest of the family, they should try to make the mealtime a pleasant and peaceful period. Particularly is it an inopportune time for correction of faults or discussion of his shortcomings.

Either lack of exercise or overfatigue may interfere with the child's appetite. A very small child is easily distracted from his eating by exciting happenings, or by having a lot of interesting toys near him. When these various factors have been ruled out, persistent refusal of food with loss of weight needs the attention of a child specialist.

Bad sleeping habits are two-edged swords, for long hours of restful sleep are indispensable to the growing child's nerves, and as with eating, sleeping can tie itself up with all sorts of behavior problems. Most little children hate to "have to go to bed by day." All through the preschool period, eleven to twelve hours of sleep at night are needed, with a nap of two to three hours during the day, gradually decreasing to one hour at six years of age. The regular bedtime must be closely adhered to, and being put to bed can be made a pleasant time to which the child looks forward; but when the bedtime story is finished, the little prayers said, the child's wants taken care of, windows open, water to drink by the bed, and lights out, he will go to sleep if he is well and if this is the unvarying rule.

Difficulty with obedience in children may result from requests that are not clear or are conflicting and

inconsistent; from lack of firmness and decision shown by mother or father; from disagreement of parents before him about his conduct; from stopping him in the middle of something he is much interested in and intent on doing, without giving him warning and time to finish it, if possible.

The child very quickly learns how to get his own way, and can be unbelievably persistent if he finds that crying or tantrums can wear down the adult's resistance. One day we heard a great commotion across the street. Looking out, we saw a three-year-old on her way to the park, to which evidently she did not want to go. For one hour by the clock, mother, nurse, and even the doorman coaxed, spanked, struggled, and fought with the wee bit of humanity, who won out in the end, seeming to get a certain satisfaction out of all the excitement she was creating. By the law of effect, they were giving her the best possible lesson in disobedience and ill temper; nor did they seem to realize the exhausting and deleterious effect of such a prolonged emotional storm on the child's sensitive nervous system.

Even from our distant point of observation, we could easily sense the uncertainty, hesitancy, and helplessness of the nurse and mother; and do not think for a minute that the baby failed to feel it. While a child should have a chance to make choices for himself, it gives him a feeling of strength, protection, and security if those in whom he trusts, firmly decide important matters for him.

Some one has said that the key to mental hygiene in childhood lies in building up adequate self-reliance and independence. This implies self-control and the exercise of his own powers and abilities at an early age. Lists of things a child should be able to do at various ages are available. For the mother to stop giving the child the care and attention he required as an infant, is often a trial, and to allow him to do things for himself is generally more trouble than to do them for him; yet this is the measure of her success as a mother.

While pushing or crowding him too fast is not safe, yet, on the other hand, it is a very serious thing to prolong his babyhood and dependency. It is not unusual to see children brought to the clinic who are still nursing the bottle at three or even four, who lack bowel and bladder control, and are fed every spoonful they eat. Sometimes children of school age are still being dressed by mamma or nurse.

One of the most common causes of failure in life—in work, in marriage, in social life—is the carrying of habits and emotions of infancy into adult years. For example, there is the man who gives up his job at the least friction or difficulty; the husband who expects his wife to wait on him "hand and foot;" the wife who runs home to mamma when her husband complains because she fails to carry her share of family responsibility. The most common and incurable form of insanity is characterized by retreat into infantile behavior.

Besides being allowed to feed and dress himself, the child should be supplied with suitable toys, such as blocks, boxes, boards, simple tools, and modeling clay, which he can use to exercise his creative ability. Balls, roller skates, and the like give him practice in coordination. It will assist in developing his sense of responsibility if a room, closet, or even

a corner is assigned to him, and he is expected to care for his own playthings and to keep them in order. This may also help to give him a sense of ownership and respect for other people's property. Plants and pets suited to his age are valuable in teaching thoughtfulness and kindness as well as the beginnings of biology. It is important that the animals be free from disease.

The toys, pictures, stories, music, so valuable in the toddler's education, if chosen with care and taste, will go far toward cultivating a love for the beautiful, fine, true, and good. The popular funnies, nonsensical rhymes, stories giving distorted ideas of life or tending to overexcite or to arouse fear, had best be left out of the nursery.

A practice that cannot be too strongly condemned is sometimes seen; it seems to amuse older children and even some grownups to tease little children even to the point of tears and rage. About the time the adult has tired of the game or the child has been goaded into some undesirable behavior, scolding or punishment follows. It is hard to resist asking such a person why he doesn't pick on some one of his own age, who can turn and give him the beating he deserves.

During earlier years the child is more or less solitary in his play, but by three years of age he begins to play with others, and as he nears school age, enjoys cooperating with others of his age in group play. This is very necessary for his normal development.

The little child who cannot play with others, who prefers sitting and dreaming by himself, or who pouts and cries if everything does not go his way in the game, is getting a bad start in life, even though his mother says he is the best child she has and that he never gives her any trouble.

Fortunate is the child with brothers and sisters! The training they give each other in living with people is invaluable. What a pity it is when parents allow jealousies and antagonisms to grow up between them, instead of the love and interest that would serve to beautify and enrich their lives. Tact, understanding, and fairness are needed to promote happy relationships.

Why an adult gets amusement out of teasing a child by such remarks as, "Mother has a new baby now, and cannot hold you any more," is difficult to understand. Surely those who do it are unaware of the seeds they are sowing in the suggestible mind of the child. Nor has any child's behavior ever been improved by holding sister, brother, or another child up to him as an example. More undesirable behavior is the usual result. Jealousies and fears thus aroused eat like a cancer into the vitals of the personality.

Little children have short memories for events. If punishments are necessary (though with a positive preventive program they may be reduced to a minimum), they should as far as possible follow the act at once and be its natural consequence; otherwise the punishment is not likely to accomplish the thing expected of it. To have father, when he arrives from the office, punish the three-year-old for something done during the day, is more likely to make the child fear and dislike the parent than to turn him against the naughty act. It is very unlikely that he will understand what it is all about.

This is the period of most vivid imagination. Not uncommonly children are unable to differentiate between fact and fancy. Do not be too quick to accuse them of telling untruths. If the parents are always truthful, if the child is not frightened by threats and severe punishments, and if in talk and stories a clear distinction is made between facts and imaginary things, he is not likely to develop the habit of lying.

There is little danger that he will take what does not belong to him if his sense of ownership has been early developed by having his own belongings respected, and if his reasonable wants are satisfied. One little child was brought to a behavior clinic for stealing. Investigation disclosed that he had diabetes, and his unnatural craving for sweets had driven him to this method of satisfying it.

Other undesirable habits in children, such as habit spasms, nail biting, bed-wetting, stuttering, and the like, are manifestations of instability or irritation of the nervous system, or both. Among the most frequent causes are physical ill health, imitation of some one, desire for attention, constant nagging, restraint and punishment, discussing his or another's nervousness before him, lack of sufficient exercise and play to use up his energy, too much excitement and not enough rest, trying to change a left-handed child to a right-handed one, fears and feelings of inferiority brought about by

unwise handling, and trying to force the child to realize his parents' ambition for him, rather than helping him to develop his native abilities at a natural rate.

Although pampering and undue solicitude are distinctly harmful, the child should have enough attention and affection shown him so that he will not need to misbehave to get notice. Some one ought to see to it also that he has a chance to succeed at his little undertakings more often than he fails, to give him courage and self-confidence.

With this enumeration of some of the rocks on which the mental and emotional bark may be wrecked, the parents well may ask, "How can we ever bring it to a safe port?" The mariner who keeps straight to the charted course with his eye on the compass need have little concern about the hidden reefs.

The haven toward which we are steering is:

1. The best possible physical health of the child.
2. A well-balanced, independent personality.
3. The development of his motor powers and abilities.
4. A reasonable degree of self-control and self-direction.
5. Such habits, skills, and knowledge as will best equip him to meet life's problems.
6. Attitudes and emotional reactions that will render him a happy and useful member of society, enabling him to live and work with others.
7. A character that will meet with God's approval, and gain promotion from the school of this life to God's great school above.

* * *

On Vacationing

(*Continued from page 3*)

we must have pure air night and day, and especially should our sleeping rooms be well ventilated. The reason why people awake in the morning with a headache, feeling half dead, is frequently accounted for by the fact that they have been poisoning the atmosphere that they were reinhaling. Should they remain there long enough, they would pass through the same experience as the pigeon confined under a glass jar.

Pure food in moderate quantities, pure air, and proper breathing are the only means provided by nature for purifying the blood, and he who is in search of some other remedy to accomplish this will meet with disappointment. Eating too much and breathing too little are frequently the cause of sickness during warm weather. Should less work be given to the stomach and more to the lungs, mankind would be healthier and happier. In order to breathe properly, it is necessary to keep erect, and thus allow free expansion of the lungs and unrestricted movements of the diaphragm. The erect position and full breathing encourage free circulation of the blood through all the abdominal and pelvic organs, and take a greater amount of blood to the surface, increasing the efficiency of the organs of digestion, and encouraging the elimination of wastes.

D. H. K.

* * *

Malarial Mosquitoes

An investigation into the life history of the malarial mosquito is to be made by the department which studies insects in the London School of Hygiene and Tropical Medicine. The investigation will cover the whole of Central Africa, from Southern Rhodesia to the Sudan. Studies in Europe have shown that there are no fewer than six races of the type known as Anopheles maculipennis, the carriers of malaria, that their breeding places and habits are different, and that some like brackish water, some fresh water, some warm water, and some cold water. Some sleep at peace with all mankind during the winter, either in attics or in cattle sheds. Others haunt the homes of men, continue to feed during the winter, and are responsible for the spread of malaria in several parts of Europe.

Similar knowledge has led to great advances in the prevention of malaria in Asia. If it is found that a dangerous mosquito likes sunshine, it is possible to exterminate it by growing a hedge or jungle over its breeding place, and so excluding the sunlight. In other places minute chemical changes in the water have freed large populations from malaria by driving out the dangerous mosquitoes. The research work in Africa aims at close cooperation with agriculture and forestry. At present, water remaining in the swamps after heavy rains becomes very malarial, and it is believed that many of these swamps can be converted into reservoirs which would assist the natives to tide over the dry season and to raise crops never grown before.

Modern Surgery Is Safe

By all means read this brief story of surgery, from the crude days of a century ago, when such a thing as sterilizing was unknown, anesthesia had not been put to use, and the mortality was shockingly high, to the present day, when a person needs to fear an operation no more than any period of illness.

How to Dress for Health and True Beauty

This is not just a lecture; it is an article with practical suggestions on dressing for health, suggestions which will appeal to every one who believes in cleanliness and appropriateness.

Why Be Vaccinated?

The writer explains the principle of vaccination, how it is effective in preventing epidemics which once were plagues. In this article and another one to appear soon, he describes different methods of acquiring immunity to certain infectious diseases. If you have any doubt as to the benefit of vaccination, you should read this article, in order to have a clear picture in your mind of the good that this procedure accomplishes.

Stuttering and Stammering

The most helpful kind of information and advice possible is given in this article, written by one who is connected with a speech clinic of a nationally known college.

Flesh or Nonflesh Diet?

"We dig our graves with our teeth," is an old saying, but true. The arguments against including meat in the diet are clearly set forth, with scientific evidence and experiment to substantiate the indictments of flesh food.

Make Sure Your Child Is Ready for School

Is he growing normally? How are his lungs, his posture, his eyes, his ears? You can be more certain that he will do good schoolwork and be well if you know that he has no physical defects at the beginning of the school year.

What Makes a Tooth Ache?

The answer to this question—rather, answers, for there are a number of causes—is given next month. Suggestions for temporary relief are also given.

Other Features

We cannot even name all the articles any more, for the journal is growing. But of course we will have the usual departments, including the ever-popular Family Physician page, and other features of interest.

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Iowa Sanitarium and Hospital, Nevada, Iowa.
Madison Rural Sanitarium, Madison, Tennessee.
Mountain Sanitarium and Hospital, Fletcher, North Carolina.
New England Sanitarium and Hospital, Melrose, Massachusetts.
Paradise Valley Sanitarium, National City, California.
Pisgah Sanitarium and Hospital, P. O. Box 6068, Asheville, North Carolina.
Takoma Hospital and Sanitarium, Greeneville, Tennessee.
Wabash Valley Sanitarium, La Fayette, Indiana.
Washington Sanitarium and Hospital, Takoma Park, Washington, D.C.

More detailed information regarding these health institutions is found in their announcements in the columns of this journal.