JOHN HARVEY KELLOGG (1852-1943)

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ARTHRITIS

Arthritis

ARTHRITIS, or joint rheumatism, like a wicked jinny, has laid its malevolent hands upon more than one hundred thousand persons in the United States, twisted their fingers so they have the appearance of claws, inflamed, enlarged and immobilized their joints, atrophied their muscles, deformed their bodies, wracked them with pain, confined them to a wheel chair or made them bedridden, or by making a savage attack upon the heart greatly lessened their life expectation. Nine hundred thousand more of its victims, badly handicapped physically, are still able to get about, though many with painful, halting steps.

Arthritis is not a new disease. It afflicted man long before the dawn of recorded history. Changes in the bones of Egyptian kings, as revealed by examination of royal mummies, show that these ancient monarchs suffered from arthritis. The ancient Greeks and Romans also experienced its crippling effects.

The causes of arthritis are many and varied. Climate seems to be an important factor. Arthritis is practically unknown in the tropics or dry, warm countries, but is especially rampant in many of the wet and cold regions of the temperate zone.

Many persons in poor health have a subnormal temperature some time of the day, if not all the time. They can not bear cold, chill easily and offer a very poor defense against arthritis.

Prolonged inactivity, such as lying in bed following a long illness or a surgical operation, is sometimes followed by arthritis, especially if graduated exercises are not instituted to increase the patient's strength and prevent immobility of the joints.

Attention has recently been called to the fact that in more than half of the cases of arthritis, tenderness is found along the course of the colon, suggesting the presence of infection in this organ. This indicates that in every case of arthritis, hygiene of the colon should receive careful attention.

Arthritis sometimes follows accidents, especially when joints are injured, but its appearance may be delayed for some months after the primary injury has entirely disappeared. In such cases the joint affection is termed "traumatic arthritis."

The skin contains more than ten thousand square feet of blood vessels which are capable of holding one-third of the blood of the body. With this fact in mind, it is not difficult to understand why some authorities regard disturbances of the skin of such great importance in causing arthritis that they refer to it as one manifestation of skin disease. The skin has lost its power to defend itself against cold. The efficiency of the temperature-regulating function of the body is impaired.

Some authorities believe that a tendency to the disease may be inherited, that is, some persons have a constitutional predisposition to the malady. They should be especially careful to avoid any of the causes which are known to be contributing factors in causing arthritis.

When foci of infection, especially diseased teeth and tonsils, were found to be a cause of arthritis, some physicians prescribed removal of the tonsils almost as a routine measure, and their prescriptions also rendered many arthritics toothless. While most gratifying results were seen in some cases, others showed no improvement, so it was soon apparent that this form of treatment is by no means a panacea.

In trades which require excessive use or strain of joints or muscles, the injured articulations are frequently subject to arthritis. Blacksmiths, miners, carpenters and bricklayers suffer from disturbances of joints and muscles which are most used. Workers in cold storage plants, ice houses and other establishments where low temperatures prevail and the air is heavily laden with moisture are especially liable to contract the disease, while furnace stokers, glass blowers and others whose occupation exposes them to high temperatures are singularly free from it.

While the most commendable campaign which is being waged against infantile paralysis is receiving wide publicity and the hearty financial support of the public, another malady, acute rheumatic fever, which is far more deadly and claims a greater number of victims, is hardly mentioned in the public press. This disease, like infantile paralysis, usually attacks children and frequently causes such great damage to the heart that the life expectation of the patient is greatly reduced. Ju-

venile acute rheumatic fever is often associated with poverty, and is therefore regarded by some authorities as of dietetic origin, at least to some degree.

Arthritis is a very stubborn malady which clings tenaciously to its victims and can not be dislodged easily. A great variety of drugs have been used in its treatment, some of which achieved a degree of popularity for a time but were soon forgotten. That arthritics are likely to be troublesome and tedious cases for the general practitioner is well illustrated by the facetious remark of a waggish physician who declared, "The best way to treat rheumatism is to send the patient to another doctor."

While there are many different kinds of "rheumatism," some of which affect the skin, others the muscles, others the bones, and still others the nerves and other parts of the body, arthritis or chronic inflammation of the joints, is the most common form and therefore is the chief subject of discussion in this article.

Many arthritics are despondent and depressed because of the pain they suffer and their fear of a life of invalidism. A pessimistic attitude is a great handicap and plays a major rôle not only in perpetuating the disease, but in so greatly negativing the effects of treatment that no improvement may be seen in the patient's physical condition until his mental outlook is more optimistic. The arthritic must cultivate an attitude of hope and resolutely face his foe with the determination to fight a winning battle, in which he may enlist the aid of the vast array of powerful curative weapons provided by modern science.

As we have seen that arthritis sometimes is an aftermath of accidents, it is not surprising that the hands, because of their greater liability to injury than other parts of the body, are one of the most frequent sites of this disease. The first symptom noted, slight stiffness of the joints of the fingers when dressing in the morning, should be regarded as a danger signal and calls for prompt, thoroughgoing and persevering treatment.

Heat kills pain, especially the pain of arthritis, and may be employed to good advantage except when the temperature of the skin of the affected parts is raised, indicating active inflammation. The hands should be repeatedly immersed, night and morning, in water as hot as can be borne, 110 to 115 degrees F., the fingers well lubricated with soap and every joint thoroughly massaged. Each finger should be put through its full range of motion many times a day to combat stiffness of the joints. By wearing a pair of loosely fitting cotton gloves which have been wrung quite dry out of cold water, over which is worn a pair of waterproof gloves to prevent evaporation, the good effects of the treatment will be enhanced. The gloves should be applied immediately after finishing immersing the hands in the hot water and while they are still red. The effect of the wearing of the two pairs of gloves is the same as that of a skin poultice. In this way, the blood vessels of the skin of the hands are kept well filled with blood, and so the good effects of the hot applications may be greatly prolonged. This simple treatment, thoroughly and perseveringly applied, may not only prevent a threatened attack of arthritis, but may to a marked degree alleviate this condition, especially in cases in which the mobility of the fingers has not been lost.

Institutional treatment offers the best hope for the arthritic patient. The plan of management originated by Doctor John Harvey Kellogg and exemplified in practice at the Battle Creek Sanitarium has met with considerable success. In addition to proper diet, other measures employed are hydrotherapy; sunshine, natural and artificial; electric light baths, local infra-red applications, diathermy; the heating compress; carefully graduated exercise, passive and active; automatic exercise, correction of postural defects to as great an extent as possible; and the cultivation of a hopeful mental outlook. Each case is treated individually and the treatment changed from day to day to meet existing conditions.

The dietary should be low in protein and rich in vitamins, especially vitamin C. Generous doses of vitamin D are sometimes helpful. Overweight arthritics will find it advantageous to regulate their food intake in such a way as to secure a reduction in weight, which will tend to lessen the severity of symptoms by decreasing the pressure on some joints incident to supporting the weight of much useless fat. Tea, coffee, condiments, and alcoholic beverages should be avoided. Pastry, pie, cake and rich desserts, especially those which when burned in the body leave an acid ash, are all harmful. Root vegetables are rich in alkaline salts and therefore are excellent for arthritis. One of the best basic foods is the potato. It may well to a large extent take the place of breads and breakfast foods. While spinach and beet greens contain oxalic acid, mustard greens, dandelion greens, and turnip tops are free from this disturbing element, and because of their richness in iron and vitamins should be used freely. The tomato, long regarded as a cause of rheumatism, even cancer, by some unscientific writers, has been shown by careful studies conducted in nutrition laboratories to be not only entirely innocent in this respect but is an exceedingly good food.

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RHEUMATISM AND ARTHRITIS

How wonderful it is to come to later life and watch the years go by without a twinge of rheumatism and arthritis! No one need fall prey to these diseases if he will follow the sensible advice given in the following pages.

RHEUMATISM AND ARTHRITIS

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Kinds of Rheumatism

RHEUMATISM is a word that covers a multitude of muscle, tendon, and joint aches and pains. It is what the instructor in rhetoric would call a generic term, for it is decidedly general in its definition. To the physician, rheumatism may mean arthritis, or joint inflammation; tenositis, or tendon and ligament inflammation; myositis, or muscle inflammation. You see, "itis" means inflammation, and the rheumatic individual may have his "itis" involving one or more crippling spots in knees, fingers, elbows, spine; along tendons and ligaments that attach muscles to bones or hold bony parts snugly together; in muscles big or little, here or there.

This rheumatic affliction of one type or other is said to attack practically seventy-five per cent of all industrial workers past forty years of age. That makes a man in this age-period somewhat of a liability to his employer, as you can see, for statistics indicate that this very crippling malady stands away ahead of cancer, heart disease, or even tuberculosis as a cause of loss of time and work.

Once rheumatism gets a good start it often means long months or years of partial or complete disability. Thus it constitutes a very grave social problem. But its ravages may largely be met by a knowledge of the simplest facts concerning the disease and its several causes. The glimpse of the standard methods of diagnosis and treatment that we shall have in this booklet may be helpful in making us sufficiently rheumatism-minded to guard against its development and to seek the right help in effecting its cure.

Naturally, the very best kind of medicine is *preventive medicine*—best from the standpoint of physical well-being and best

from the economic viewpoint. Rheumatism unquestionably offers a tremendous opportunity for the exercise of good common sense in halting a serious disease before it gets started. The major fundamental in rheumatism prevention, as in any disease, is a life so ordered as to insure superlative health and maximum vitality. This means a knowledge of and adherence to the laws of nature, which are in truth the laws of God.

Arthritis — Joint Trouble

The rheumatic disability that provides the greatest problem is *arthritis* — joint trouble. It is in this type of rheumatism that we find the long-standing chronicity and the crippling impairment that is suggested by the term rheumatism — the disease that "cripples in the largest number of cases, and kills in the smallest number." Very often joint, muscle, and tendon inflammation are combined; and then again a sprained ankle or wrist will involve ligaments and tendons, with no arthritis. Lumbago means the inflammation and consequent soreness of the great muscles in the lumbar region, or lower back. But then, muscle, tendon, and ligament disorders are minor in comparison to joint inflammations, and it is with the latter that we are chiefly concerned and to which we shall devote our attention.

We shall first introduce you to a surprising number of diseases with which joint inflammation may be associated. Just read through the list, and let us explain the terms later.

1. Chronic infectious arthritis.
2. Chronic osteoarthritis.
3. Rheumatic fever.
4. Gout.
5. Systemic diseases which may give rise to joint infection and are caused by the specific germ responsible for the particular disease.

a. Gonorrhea.
b. Tuberculosis.
c. Syphilis.
d. Dysentery.
e. Malta fever.
f. Scarlet fever.
g. Septicemia.
h. Pneumonia
i. Typhoid fever.
j. Meningitis.
k. Mumps.
l. Leprosy.

6. Illness from serum injections.
7. Certain nervous system disorders.
8. Certain blood disorders, as hemophilia and purpura.

Such a list indeed looks formidable, and yet it is incomplete as a technical classification. It is quite sufficient, however, for practical purposes; and even of this number there are only perhaps six that represent the great number of rheumatic cases seen by the general practitioner. Of the next 100 rheumatic patients visiting the average medical office there will be 25 to 30 with chronic osteoarthritis, 35 to 40 with chronic infectious arthritis, 3 to 5 with gouty arthritis, 2 with gonorrheal arthritis, 1 with tubercular arthritis, and 1 with rheumatic fever. The last three are included not because of the great prevalence, but because of the seriousness of the disease and the prevailing ignorance concerning it. From the arthritis clinic of the Presbyterian Hospital comes the report that of 400 patients consecutively entered with chronic joint complaints, 300 belong to the first two groups; namely, chronic infectious arthritis and chronic osteoarthritis. This makes it appear as if Nos. 1 and 2 of the above list were of chief importance in the rheumatic woes of mankind; and, as such, these two types have received much attention from research workers. We are thus able to present you with facts that have been accumulated from the intensive study of scientific minds the world around, and it is our hope that they may be so clearly and convincingly presented that the quackery so injuriously practiced on credulous and hopeful rheumatics may be curtailed.

We shall endeavor to present the different types of arthritis through the concrete examples offered by the patients themselves. In other words, you may think of yourself as an observer in a rheumatism clinic. We shall examine the records of patients that represent each type of the disease, and thus try to bring out the essential points in diagnosis and treatment. And to make it the more interpretative we shall ask you, the reader, to take the role of *Mr. Average Man*, and thus, through questions that might occur to the mind, aid us in bringing out helpful points.

Chronic Infectious Arthritis

THIS type of arthritis has been given a number of confusing names. Perhaps we had better list them; then you will see why even some doctors themselves get mixed up. Here they are: atrophic, proliferative, rheumatoid, primary progressive, synovial, deformans. These names suggest something of what is actually going on in a joint involved in such a destructive process,—but they all mean the same thing,—namely, infectious arthritis. Let us see why it is called chronic infectious, deforming, progressive, atrophic, and so on. It is a germ infection, and the patient's trouble is not limited to the sore joints; he is sick all over, chronically ill. It begins with inflammation and swelling of the tissues within the joint,—the synovial membranes,—gradually following with complete destruction of that lining membrane and the thick cartilage beneath, thus removing all the "bearings" of the joint and causing raw bone to grate on raw bone. Of course this means bone injury, and nature tries to protect the part by depositing in and about the joint a lot of calcium (bone), which naturally deforms it. And then from this extensive inflammation we get a growing together of the bones thus united, and the joint becomes fixed in one position. Well, suppose we go into our "Rheumatism Clinic" and take some cases of this type now to get from real life the details we are interested in.

Our first patient this morning is Mrs. Anderson. She presents a very interesting story. Her experience should teach us much as to how the arthritis patient must relate himself to the affliction and to the physician. This woman is forty-one, has a pleasant home, two fine children, and reasonable financial advantages. She is a person who appreciates the accrued value of careful and healthful living, has always been abstemious in her habits, and consequently has had occasion to challenge the suggestion that her type of arthritis always selects the debilitated, the overworked, the undernourished.

Well, about six years ago—she was only thirty-five then—her right knee began to swell, was sore, a bit hot and red, and ached at night. Presently both elbows began to ache, and the right wrist added further to her fear and misery.

She began to "doctor." Mrs. Anderson had one very bad fault. She insisted on quick, painlessly acquired results. She saw no reason to curtail her activities about the home or to allow treatment to interfere with her social interests. And when one doctor failed to secure freedom from pain and annoyance in three or four weeks she would dismiss him and select another practitioner. And so things continued, up and down, for some time. Finally, X-ray pictures of her joints were shown to her, and an inevitable future of stiff legs and arms was graphically detailed. It brought her to her senses, and she entered into solemn contract with her medical adviser to follow his instructions implicitly and faithfully irrespective of the sacrifice of her personal desires.

Her physician had a dentist extract three teeth—not very bad, but with enough inflammation around them to make them objects of suspicion. The opening of the womb had been badly torn in childbirth and the deep pockets thus formed were filled with pus. These were opened by an electric knife and the whole area cleaned up. And—much against her will—she was put to bed and kept there for several weeks.

Mr. Average Man: Why was she put to bed?

Doctor: Would you expect a broken arm to mend if you removed it from the splint several times a day and bent the fragments around just to see how things were progressing? Of course not. You would keep that injured part at absolute rest, and thus give nature an opportunity to effect a cure. Well, when the lining membrane of a joint is swollen and sore, when the cartilage underneath that membrane is rough and irregular-looking, like a linoleum covering worn through here and there, exercising such a joint offers just about as great a handicap to nature in her effort to heal as to wriggle a broken arm. Physical rest is the first order of nature for any illness. It is by all odds the best medicine in the world,—the one and only panacea.

In our study of chronic infectious arthritis we must early get it fixed in our minds that this type of rheumatism is a constitutional disease,—a general body disease,—with local manifestations in the joints or elsewhere. You may wonder just what we mean by that. Well, when a man has pulmonary tuberculosis, you look on him as a sick man,—sick all over,—yet the manifestation

of the disease is distinctly local—in his lungs, at least at first. The same attitude must be taken toward arthritis. It is a general body disease, and therefore the whole body must be treated, not the joints alone.

Mr. Average Man: Is Mrs. Anderson's rheumatism caused by a germ of some kind? You stated that some teeth were extracted and certain other abscesses opened and drained.

Doctor: We call Mrs. Anderson's type of arthritis nonspecific. That means it is not caused by germs specifically identified with certain known diseases, as gonorrhea, pneumonia, dysentery, tuberculosis, and a dozen others. But the chronic rheumatism she has had is most certainly due to a germ; it is named after its appearance rather than for any special disease in which it may be implicated. We call it a *streptococcus*,—just a string of dots like this (.....) under the microscope. Well, our infection may begin locally in the gums as a pyorrhea, or in the tonsils, or in the sinuses. From these higher areas it is passed on into the stomach and intestinal tract. Thus the intestinal tract may become the most important of the Augean stables for Dr. Hercules to clean up. For that reason, if bacterial study of the stool indicates an equal number of streptococci and the usual intestinal bacteria, we recognize an intestinal poisoning that should demand our attention. When the colonies of the streptococci amount to more than half of all the types of bacteria present in the stool, we think more of cleaning up the colon than the suspicious teeth. Incidentally, ordinary pyorrhea is more definitely associated with troubles of this sort than pockets at the root of a tooth. In pyorrhea we constantly swallow the stuff and pass it along for intestinal planting. And, don't forget, the stomach gets it first. A lot of stomach trouble and other constitutional ailments develop from swallowed bacteria from teeth, tonsils, and sinuses.

Some time ago, a woman came along who still had her rheumatism in spite of a wholesale cleanup of her mouth,—the sort of infirmity that should have responded to the fine treatment she had co-operated in. Well, the stool revealed an overwhelming growth of streptococci, and efforts directed at her intestines solved her problem.

Yes, most emphatically, Mr. Average Man, this kind of rheu-

matism is a germ disease. Mrs. Anderson was searched with a fine-tooth comb for the source of her infection,—a focus we call it,—and everything that was found was cleaned up or removed. But there is reason to know that these teeth and this diseased cervix of the uterus, draining pus into the system for years, have distributed germs to areas not accessible, and so the body must build up its resistance to conquer whatever infection is left. Thus, you see, this is another reason for considering arthritis as a constitutional disease with local manifestations, instead of simply looking at it as a joint disease. This is the reason for treatment aimed at the building up of the whole body.

It might be interesting right here to note that from years of study and the collection of much data from many clinics it has been quite well established that a localized infection somewhere is invariably the activator of chronic infectious arthritis. Just where do you suppose these germ incubators are usually found?

We will tell you: tonsils 59%, teeth 29%, and from appendix, gall bladder, sinuses, prostate, cervix of the uterus, and colon 12%. And please do not get the idea that just because your throat is not sore or your teeth are not hurting, your doctor and your dentist are wrong. Now, since an infection of the teeth and tonsils may constitute the original source of infection in other areas, as the gall bladder, the colon, and the appendix, it remains that the last 12% noted above may have originated from a long-standing pyorrhea or diseased tonsil.

Here is another concrete example of a chronic mouth infection, showing how tonsils that are never "sore" are sometimes dangerous: A woman of thirty-six complained of early symptoms of infectious arthritis. Three points of specific interest were noted: (1) She had tonsils from which free pus could be squeezed; (2) she was overworked, profoundly tired, and underweight; (3) the rheumatism did not show its vicious head until the loss of weight and fatigue were manifest.

When we advised removal of the tonsils, she countered with the testimony that they had been just as bad for fifteen years and that her joint aches were only three months old! What was the answer? We told her that her lowered vitality due to overwork, worry, and the resulting loss of appetite, loss of weight, indiges-

tion, and her developing anemia opened wide the gate, and those streptococci, incubated in her tonsils, lost little time in going to work in their favorite spots. This woman had her tonsils out, and she got well.

Mr. Average Man: Since chronic infectious arthritis is conceded to be a germ disease, did you use vaccine in this case?

Doctor: Yes, we did. There is a lot of pro and con on the vaccine question in arthritis; some very good physicians condemn it and equally good men advocate it. It has more high-powered advocates among arthritis specialists, however, than it has enemies. This is the reason: Results speak louder than arguments. When you see the halt and the lame walk as a result of this vaccine, your antivaccine fangs are drawn. And it is logical, for organisms that we have every reason to believe are associated with arthritis as a distinct cause are used in the preparation of the vaccine. These germs come from the victims themselves. Now the thing that vaccine is supposed to do—and we know that in most folks it actually does it—is to jar the defense mechanism of the body into more potent and aggressive action against this enemy. By injecting at five- to seven-day intervals over a period of six to twelve months, with increasing doses of this material, the biochemical defense resources of the system are built up, and in a certain large percentage of cases will provide a potent weapon in conquering the disease.

The vaccine and the enforced rest are the two things that Mrs. Anderson will always remember us for. She disliked them both, and we found it necessary to chastise her verbally on a few occasions because of her impatience of restraint and unconscious lack of co-operation. The tendency is to want to get up and go just as quickly as the pain leaves; but we know that until all evidence of the infection has disappeared, activity invites a return of trouble and a prolongation of the illness. Well, you see in Mrs. Anderson the result of six months' effort.

Doctor: Are you having any pain or stiffness now, Mrs. Anderson?

Mrs. Anderson: Not a bit. I feel just fine; but I want to know when you are going to tell me that I can do as I please, and when do we quit the "shots"? And, by the way, doctor, give plenty of

credit to that carrot juice; I have been drinking about a pint a day of that for the past month and, really, I think it has helped a lot.

Doctor: Well, we will give reasonable credit to the carrot juice. It provides a fair amount of vitamins B and C, which are now recognized as valuable in rheumatic ailments. Tomatoes, spinach, and cabbage, however, are much richer in these desirable elements. We shall have more to say about this matter later. And the "shots,"—we are about done with them, but you may expect to be on parole for several months yet. Mrs. Anderson, your trouble is arrested, but we are not yet sure of a cure, so please do not act as you might if you were actually cured. Keep the brakes on.

Our next patient is Mrs. Baldwin. Stand up, Mrs. Baldwin, and walk across the floor for us. Do you folks detect a limp? No, you don't, do you? Well, just a year ago this lady was unable to straighten her right leg. The knee was fixed in a slightly bent position by chronic arthritis, and as a result she limped badly. She had some difficulty also in her right hip, her left elbow, and her right wrist. Well, for three solid months this young woman—she is only twenty-nine—was in bed with a pin through the heel bone of her right foot and a ten-pound weight pulling constantly on that leg and knee. She, too, received the same constitutional treatment as did Mrs. Anderson. You see the result; the knee extends fully and both legs are the same length.

This little lady represents the type of individual who takes it for granted that a disease of this kind can be licked by doing nothing in particular about it—just grind away at the regular job and try to ignore the evidences of developing trouble. Well, for six or eight years she suffered in silence, some weeks worse, some days better, until she eventually discovered that she could bend her left elbow just so far and no farther, and her right knee was stiffening and shortening. This brought alarm and action. X-ray of this damaged elbow shows us that the lining and cushion is entirely gone, bone joins bone, and inflammation has been so great and over such a long period of time that deposits of calcium have successfully fused the bones of the forearm with the bone of the upper arm and given her what virtually amounts to one crooked bone from shoulder to hand. What a pity! All because of neglect. The

only hope now of restoration of any kind of function for this elbow will involve an elaborate surgical procedure that means a pile of money and uncertain results. The knee was caught in time, that is, before the destruction in the joint had gone too far; and, if she continues to co-operate in her treatment, the disease will undoubtedly be eradicated, with limited permanent disability.

This case brings to our attention the importance of competent mechanical help in the treatment of this type of arthritis,—the use of splints to immobilize, and thus compel rest of, inflamed joints, and the use of apparatus whereby a steady pull can be exerted upon limbs to pull them back to normal. This sort of work requires a specialist—we call him an orthopedic surgeon.

Mr. Average Man: How about the diet in these cases?

Doctor: Yes, that is an important point. We are past the freak diet era in arthritis. We know that this type of chronic rheumatism is due to infection. Therefore the logical thing is to provide the type of diet that will build up vitality, for in so doing we are the more likely to whip the infection. Thus a good substantial tray is provided: alkaline ash, relatively high in protein, but relatively low in starches and sugars; plenty of bulk from fruit and vegetables, cooked and in salads; cream and butter as substitutes for starches and sweets in those cases where overweight is not a problem. We can get along very nicely without meat by providing our protein through milk, eggs, cottage cheese, nut foods, and the legumes—peas, beans, lentils, etc. Recently much has been said about vegetable juices. There is probably some virtue in these; and, if our patients are so minded, we encourage the free use of such vitamin-and-mineral carriers as carrot juice, spinach juice, tomato juice, and others. We shall have more to say about diet, and in considerable detail, in another chapter.

Mr. Average Man: Does heredity have anything to do with infectious arthritis?

Doctor: Yes, in probably the same way that any chronic disease is lined up with family history or hereditary influences. We acquire weakened, more susceptible, building material, but we do not have the germs themselves passed on to us. An individual with a family history of arthritis just has to watch his step a little more than the fellow with no squeaky joints in his family tree. He

should not take the chance with pyorrhea and cheesy tonsils that his neighbor tries to get by with.

Mr. Peters is our next patient. He is a grocery clerk, on his feet much, and, to his great concern, those big feet of his began to go bad on him some months ago. For a long time he did nothing about it, but when it became quite impossible to work, he came to find out if his pedal extremities were worth salvaging. Both ankles were swollen, red, hot, tender. The only cause we found was two tonsils from which we could, on pressure, express pus,—and plenty of it. Well, to condense our story, we took his tonsils out, took him off his feet for a while, gave him the type of program which we have been describing. Are you improving, Mr. Peters?

Mr. Peters: Decidedly, doctor. It has been just six weeks since the tonsils came out, and I am getting around the store now with very little pain.

Doctor: We are giving him vaccine, which we shall keep up for at least two months more, and also local treatment until further notice. It is quite safe for him to be around on his feet if not for too many hours a day.

Mr. Average Man: Do you give these folks any kind of physical therapy; that is, massage or heat or anything like that?

Doctor: That is what we mean by "local treatment." The most serviceable local help we have found is the infrared ray. That may be secured by an expensive therapeutic lamp or by a humble ninety-eight-cent electric heater. The application of this heat to each joint for thirty minutes twice a day is our routine. We usually use with it an iodine ointment, and, following one of the heat treatments, massage of the muscles *between the joints*. Do not allow the nurse or masseur to manipulate the joint in this kind of rheumatism. That part of the job is distinctly up to the specific direction of the doctor. Sun baths are of extreme importance, and if they are not climatically possible, by all means get quartz or ultraviolet light.

It might be well at this point to summarize briefly the treatment program that has been carried out on these three cases presented. Remember, we have been talking about *chronic infectious arthritis* only. Here is the recognized treatment for it:

1. Rest. Avoid hurry and worry at all times. Physical quiet

must be regulated in accordance with the degree of infection and the condition of the patient. Some cases should be put at absolute bed rest. Others should secure ten hours of sleep at night and at least one hour during the morning and one hour during the afternoon.

2. Inflamed, sore joints should be put up in a removable cast or splint and thus immobolized for a sufficient period of time to quiet the local swelling, pain, and heat. Each day the splint should be removed, and, following a treatment to be described, the joint should be moved through the entire extent of its possible movement—once. This action is for the purpose of preventing adhesions, which may form very rapidly with inflammation and immobolization.

3. Physical therapy:

a. Hot tub baths, followed by quick, cold shower or cold friction rub, avoiding inflamed joints.

b. Heat-lamp to affected joints for thirty minutes two or more times a day. It cannot be overdone, and may be used in conjunction with an ointment containing iodine and oil of wintergreen, as follows:

Lamp for five minutes.

Apply ointment to heated part.

Lamp to same area for thirty minutes.

c. Massage to muscles, but *avoid the inflamed joints.* The only exercise given directly to the inflamed joint is the one movement a day described under "2."

d. Sun baths. Begin cautiously with about three minutes' exposure, and gradually increase. Take them early in the morning to avoid the heat. The thing desired is the ultraviolet ray, not the heat. If sunlight is not available, use quartz light in the doctor's office.

e. Fever therapy for this type of rheumatism is probably of no great value.

4. Clean up all evident infection—tonsils, teeth, sinuses, digestive tract (colon). Remember we are dealing with a disease that has its origin in an infection; yet we must not overlook the fact that its course is materially influenced by heredity, nutrition, age, occupation, and vitality, as affected by habits of life.

5. Vaccine. Success in vaccine treatment depends upon persistence. It must be continued at five- to seven-day intervals for at least four months, and frequently up to a year.

6. Manipulative surgery where indicated. This simply means the breaking up of adhesions by the clever trained hand of a specialist. Adhesions tend to form quickly in the soft tissues of the inflamed or injured joint, and thus to limit motion and incapacitate the victim. Usually this can be accomplished only under an anesthetic, and should be attempted only after the inflammation has subsided.

7. Combat anemia by proper feeding and, where indicated, by the use of recognized iron compounds.

8. Diet. A chapter will be devoted to the nutritional program for the arthritic.

9. Such general measures as will contribute to the building up of vitality in recognition of the fact that arthritis affects the whole body. Among them may be preparations dispensed by the physician which he considers helpful in bringing about an improvement in the circulation, especially in the joints—effected largely by dilatation of the blood vessels; by improving the appetite, by regulating the bowels, and by enhancing general bodily tone and vigor.

10. A hopeful attitude and peace of mind must be sought. A mind and body stimulated by hope means much in the process of recovery.

11. Vitamins B and C are proved to be distinctly beneficial in rheumatic affections. A and D undoubtedly aid in the building up of vitality. Any infection increases the demand for vitamin B; consequently, infectious arthritis should suggest an added need for B in the diet. One of the best sources is wheat germ. If the full requirement came from this alone, it would take about one cup a day. (Wheat germ may be cooked in a double boiler for twenty minutes and used as a cereal, or baked as muffins.) But we find B also in beans, spinach, cabbage, carrots, and tomatoes, as well as in certain types of yeast. It is perhaps just as well to step up the possible intake of B from food by giving it in capsule form as provided on the market, or in tablet form, as these yeasts. In fact, capsules containing vitamins A, B, C, and D are very much

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Mr. Average Man: Will you not follow this summary of therapeutics with a résumé of probable causes for this type of arthritis?

Doctor: That is a worthy request and a good suggestion even through it is odd to follow therapy with etiology (cause). So here it is:

1. Infection—look for it in tonsils, teeth, sinuses, appendix, gall bladder, prostate, tubes, cervix, colon.

2. Whatever may contribute to the lowering of resistance to infection, as for example:

a. Heredity—trouble of a similar nature in the family.
b. Underweight.
c. Fatigue.
d. Exposure.
e. Glandular defects.
f. Worry.

Chronic Osteoarthritis

THIS particular type of arthritis also carries a number of different names supplied by men who have attempted to describe it in as graphic terms as their vocabulary would permit. And so we hear it called hypertrophic, menopausal, senile. Well, of course it all means chronic osteoarthritis, and the term "senile" probably expresses the most suggestive thing about it. It is one of the signs of age and is to be expected with the same degree of certainty as gray hair, hardening arteries, and "hot flashes."

Mr. Average Man: Is this type such as to make the victim sick all over, as in the infectious type?

Doctor: No. Osteoarthritis is not due to infection; it is distinctly the result of wear and tear and injury. There is no anemia; the joint is not hot, or red; there is no fever. So it is not a constitutional disease with local manifestations, as is infectious arthritis.

Mr. Average Man: Are focal infections important in this type, then? If it is not due to infection, are vaccines of any value?

Doctor: Infections here and there are not important, except as the general well-being of the body may be affected by them. They probably do not have any causal relationship to the arthritis. Since osteoarthritis is not caused by infection, it therefore stands to reason that it will *not* be benefited by vaccine.

Mr. Average Man: Aside from the natural processes of age, what is the probable cause of this type?

Doctor: First and foremost among causes we must put down trauma (injury) as the most frequent exciting factor,—a twist, a fall, a blow, the putting of too much strain on joints. A school janitor slipped on the steps while carrying a load of something and, in trying to save himself from a picturesque fall in front of a group of giggly students, wrenched his back severely. He was laid up with arthritis of the spine for months. Age had brought changes in his spine that required only a wrench to tear ligaments and start trouble.

Overweight is a common cause. A fall to the pavement may tear at a knee or a wrist and initiate difficulties that simulate a bad sprain. Other causes are glandular disturbances (this type often arrives with the change of life); faulty posture which throws an

abnormal strain somewhere; exposure; bad circulation; heredity, with its tendency to pass on to us a lot of inferior joint tissue that fails to wear its allotted time. And so we find it in persons at or beyond middle life, producing disability varying all the way from inconvenience to severe crippling. The joints enlarge, but rarely stiffen tightly by growing together as they do in the infectious-type victims. A common place for the first evidence of it is in the terminal joints of the fingers. Instead of a distinctly angry inflammation of the soft tissues in the joint caused by an infection, it presents a worn-out joint cartilage and a bony overgrowth, incapacitating by "rusty-hinge" action and bunglesome enlargement.

Mr. Average Man: Is there not a certain amount of bony overgrowth about some joints that will gradually develop throughout the years as a result of ordinary wear and tear?

Doctor: Exactly. The gnarled hands of the farm laborer attest to that. Almost invariably we see it in the spine in individuals past middle life. We find it accidentally with the X ray when examining for other difficulties. There may be no symptoms unless an acute injury sets up some inflammation, as in the case of the janitor.

Now may we introduce Mrs. Stephens? She is just fifty-two years old, not overweight, looks to be in good health, has no anemia or infected teeth or tonsils. But she does have several enlarged joints on her hands and very creaky knees that show enlargement. These joints are occasionally painful, but there is none of the redness or soft-tissue swelling or heat that were observed in the other cases.

Mr. Average Man: Any fever?

Doctor: No fever, whereas the other patients did have fever while the disease was active. This woman's trouble began during the change of life, and she has observed its development for the past five years. So, you see, glandular disturbances may have much to do with chronic osteoarthritis.

Here is another woman who, I would guess, weighs in the neighborhood of two hundred pounds—fully fifty pounds overweight. You will notice when she arises she does so with evident distress in her knees, and she walks as if uncertain of her knees. There you have a proposition of age with its expected wear plus

excessive strain on joint surfaces by overweight. Knees and ankles built to carry one hundred forty pounds may not take two hundred without a grumble.

An old chap seventy-two years of age undertook to mow the lawn the other day. He did it, but he paid for it with a swollen knee and two sore wrists that will give him trouble off and on for the rest of his days. Worn joints just cannot take certain forms of added abuse without actual serious injury to parts that ordinarily would serve us well as long as needed.

Mr. Average Man: I suppose treatment for osteoarthritis differs from the infectious type.

Doctor: In certain points, yes. For example, this type of the disease needs exercise and joint massage—a treatment taboo in the infectious type. Mrs. Stephens will always have her enlarged joints, for we cannot absorb the bone that has crowded around and made them ugly, but we may succeed in stopping its progress and make the joints painless. She will need a precise mixture of thyroid, ovarian, and pituitary extracts to secure a proper balance in her glandular system. This alone will do much in taking the soreness and the swelling out of her joints, through its effect upon body chemistry.

The overweight patient must reduce. Those poor knees are just too old and worn to carry that amount of weight, and the crumbling and crippling will most certainly be progressive unless the load is lifted. Reduction in weight for her probably involves the glandular system too. She very likely needs both thyroid and pituitary extract in addition to diet, massage, and exercise to take off that extra poundage.

These folks enjoy and appreciate the support that may be obtained through a simple roller bandage that can be wrapped about the knee and foot. The use of local heat, as in infectious arthritis, is in order; and the hot and cold bath for extremities has curative power. Immerse the foot, leg, hand, and arm in water as hot as can be borne for three minutes; then transfer to water as cold as you can get it for thirty seconds. Keep up this treatment for half an hour. Short-wave diathermy treatments in the doctor's office are probably more helpful in this type than in the infectious.

Another treatment that can be used in any type of arthritis

only hope now of restoration of any kind of function for this elbow will involve an elaborate surgical procedure that means a pile of money and uncertain results. The knee was caught in time, that is, before the destruction in the joint had gone too far; and, if she continues to co-operate in her treatment, the disease will undoubtedly be eradicated, with limited permanent disability.

This case brings to our attention the importance of competent mechanical help in the treatment of this type of arthritis,—the use of splints to immobilize, and thus compel rest of, inflamed joints, and the use of apparatus whereby a steady pull can be exerted upon limbs to pull them back to normal. This sort of work requires a specialist—we call him an orthopedic surgeon.

Mr. Average Man: How about the diet in these cases?

Doctor: Yes, that is an important point. We are past the freak diet era in arthritis. We know that this type of chronic rheumatism is due to infection. Therefore the logical thing is to provide the type of diet that will build up vitality, for in so doing we are the more likely to whip the infection. Thus a good substantial tray is provided: alkaline ash, relatively high in protein, but relatively low in starches and sugars; plenty of bulk from fruit and vegetables, cooked and in salads; cream and butter as substitutes for starches and sweets in those cases where overweight is not a problem. We can get along very nicely without meat by providing our protein through milk, eggs, cottage cheese, nut foods, and the legumes—peas, beans, lentils, etc. Recently much has been said about vegetable juices. There is probably some virtue in these; and, if our patients are so minded, we encourage the free use of such vitamin-and-mineral carriers as carrot juice, spinach juice, tomato juice, and others. We shall have more to say about diet, and in considerable detail, in another chapter.

Mr. Average Man: Does heredity have anything to do with infectious arthritis?

Doctor: Yes, in probably the same way that any chronic disease is lined up with family history or hereditary influences. We acquire weakened, more susceptible, building material, but we do not have the germs themselves passed on to us. An individual with a family history of arthritis just has to watch his step a little more than the fellow with no squeaky joints in his family tree. He

should not take the chance with pyorrhea and cheesy tonsils that his neighbor tries to get by with.

Mr. Peters is our next patient. He is a grocery clerk, on his feet much, and, to his great concern, those big feet of his began to go bad on him some months ago. For a long time he did nothing about it, but when it became quite impossible to work, he came to find out if his pedal extremities were worth salvaging. Both ankles were swollen, red, hot, tender. The only cause we found was two tonsils from which we could, on pressure, express pus,—and plenty of it. Well, to condense our story, we took his tonsils out, took him off his feet for a while, gave him the type of program which we have been describing. Are you improving, Mr. Peters?

Mr. Peters: Decidedly, doctor. It has been just six weeks since the tonsils came out, and I am getting around the store now with very little pain.

Doctor: We are giving him vaccine, which we shall keep up for at least two months more, and also local treatment until further notice. It is quite safe for him to be around on his feet if not for too many hours a day.

Mr. Average Man: Do you give these folks any kind of physical therapy; that is, massage or heat or anything like that?

Doctor: That is what we mean by "local treatment." The most serviceable local help we have found is the infrared ray. That may be secured by an expensive therapeutic lamp or by a humble ninety-eight-cent electric heater. The application of this heat to each joint for thirty minutes twice a day is our routine. We usually use with it an iodine ointment, and, following one of the heat treatments, massage of the muscles *between the joints*. Do not allow the nurse or masseur to manipulate the joint in this kind of rheumatism. That part of the job is distinctly up to the specific direction of the doctor. Sun baths are of extreme importance, and if they are not climatically possible, by all means get quartz or ultraviolet light.

It might be well at this point to summarize briefly the treatment program that has been carried out on these three cases presented. Remember, we have been talking about *chronic infectious arthritis* only. Here is the recognized treatment for it:

1. Rest. Avoid hurry and worry at all times. Physical quiet

must be regulated in accordance with the degree of infection and the condition of the patient. Some cases should be put at absolute bed rest. Others should secure ten hours of sleep at night and at least one hour during the morning and one hour during the afternoon.

2. Inflamed, sore joints should be put up in a removable cast or splint and thus immobolized for a sufficient period of time to quiet the local swelling, pain, and heat. Each day the splint should be removed, and, following a treatment to be described, the joint should be moved through the entire extent of its possible movement—once. This action is for the purpose of preventing adhesions, which may form very rapidly with inflammation and immobolization.

3. Physical therapy:

a. Hot tub baths, followed by quick, cold shower or cold friction rub, avoiding inflamed joints.

b. Heat-lamp to affected joints for thirty minutes two or more times a day. It cannot be overdone, and may be used in conjunction with an ointment containing iodine and oil of wintergreen, as follows:

Lamp for five minutes.

Apply ointment to heated part.

Lamp to same area for thirty minutes.

c. Massage to muscles, but *avoid the inflamed joints*. The only exercise given directly to the inflamed joint is the one movement a day described under "2."

d. Sun baths. Begin cautiously with about three minutes' exposure, and gradually increase. Take them early in the morning to avoid the heat. The thing desired is the ultraviolet ray, not the heat. If sunlight is not available, use quartz light in the doctor's office.

e. Fever therapy for this type of rheumatism is probably of no great value.

4. Clean up all evident infection—tonsils, teeth, sinuses, digestive tract (colon). Remember we are dealing with a disease that has its origin in an infection; yet we must not overlook the fact that its course is materially influenced by heredity, nutrition, age, occupation, and vitality, as affected by habits of life.

5. Vaccine. Success in vaccine treatment depends upon persistence. It must be continued at five- to seven-day intervals for at least four months, and frequently up to a year.

6. Manipulative surgery where indicated. This simply means the breaking up of adhesions by the clever trained hand of a specialist. Adhesions tend to form quickly in the soft tissues of the inflamed or injured joint, and thus to limit motion and incapacitate the victim. Usually this can be accomplished only under an anesthetic, and should be attempted only after the inflammation has subsided.

7. Combat anemia by proper feeding and, where indicated, by the use of recognized iron compounds.

8. Diet. A chapter will be devoted to the nutritional program for the arthritic.

9. Such general measures as will contribute to the building up of vitality in recognition of the fact that arthritis affects the whole body. Among them may be preparations dispensed by the physician which he considers helpful in bringing about an improvement in the circulation, especially in the joints—effected largely by dilatation of the blood vessels; by improving the appetite, by regulating the bowels, and by enhancing general bodily tone and vigor.

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Another treatment that can be used in any type of arthritis

and that is applicable to any joint is the paraffin coat. Buy about two pounds of the kind of paraffin used to seal jelly, and melt it in a double boiler—the same utensil as is used for oatmeal cooking. When it has melted, allow it to cool until a thin scum has formed on the top. It is then at the temperature that will be tolerated by the skin. Then with an ordinary paintbrush, or a swab made by tying a bit of cloth to a stick, apply eight successive coats of the paraffin to the area about the joint to be treated. Allow it to remain for from thirty to sixty minutes, then peel it off and return it to the pot for use again the next day.

Provide a well-balanced diet, and reinforce the usual vitamin intake with A, B, D capsules. And remember, there is no royal road, no short cuts back to recovery. Patience it takes, and a lot of it!

Bones of the hand (right) in a case of arthritis deformans of five years' duration, as compared with the bones of a normal hand (left). Note the "welding together" of the bones in some of the finger joints, and the irregular density of the bones.

Gonorrheal Arthritis

GONORRHEA, as you know, is a venereal disease caused by a specific germ called the gonococcus. Usually the evidence of the loathsome infection is localized, but it frequently becomes a general blood infection. As such it may plant some of these organisms in certain joints, there to flare up into a very painful arthritis. In other words, gonorrheal arthritis is a complication of gonorrhea which may appear while the disease is acute, while it is subsiding, or when it is chronic. Unless the arthritis is promptly and successfully treated, the joints involved may undergo changes that result in permanent crippling. Let us meet a typical case of gonorrheal arthritis,—Mr. Fox.

Note the difficulty with which Mr. Fox walks. His trouble seems to be entirely in his feet. And you may rest assured that every step that he takes registers a jolt of pain through several hundred nerve paths. His feet really hurt. He is one of the million and a half new cases of gonorrhea that blossom forth each year, and he is suffering from gonorrheal arthritis. It developed just when Mr. Fox thought he was forever done with a bad mistake. He has been under treatment for it for weeks,—at first in bed, with fever, sweating, pain from any movement. And the pain is most difficult to control.

Mr. Average Man: Does it always attack the feet?

Doctor: Not always; but with great frequency the feet are involved, alone or with any other joint or joints. It is a most stubborn thing to clear up. This is one type of arthritis in which everyone will agree that vaccine therapy is important and efficient. In fact, before the dawn of this type of treatment, feet like his sometimes never returned to normal. We recall a man who hobbled about for thirty-five long years on huge swollen feet that required tailor-made shoes. Every minute of the day he had a reminder of his early folly.

Another form of treatment that has proved to be very sucessful in this specific joint trouble is the hyperpyrexia bath, or artificial fever. Care must be taken in this, as in the infectious type, to prevent adhesions by giving cautious movements as the acute symptoms subside.

Other Infections of the Joints

There are many other specific infections—that is, infections due to a particular germ disease—that may cause arthritis. It may happen with a certain type of dysentery. It may occur with, or as a result of, pneumonia. Tubercular joints in young patients are far from uncommon in association with tuberculosis elsewhere. It is a fairly common occurrence in the course of scarlet, typhoid, or Malta fever. Blood infections from wounds—septicemia—very frequently are accompanied by abscess formation in or about the joints. There are some five additional systemic diseases listed in an earlier chapter that may give rise to more or less serious arthritic problems, and which must be looked upon as complications of the general disease.

We have discussed gonorrhea in this connection, but there is just one more disease which we feel should receive a bit more than simply passing mention. That one is tubercular arthritis. The subtle development of this very serious disease in the course of tubercular infections elsewhere often allows for rather marked advancement before one is aware that anything untoward is happening.

Although almost any joint may become infected, those most commonly attacked are the hip, knee, spine, ankle, wrist, elbow, and the small bones of foot and hand. The night symptoms are always suggestive in a child,—he tosses, groans, cries out. While during consciousness the muscles are tense and will keep a sore joint quiet, during sleep they are relaxed and will allow for movement and contact of tender surfaces, causing pain sensation from sensitive nerves. The child then has what are sometimes called "night terrors," as a result of subconscious pain. The treatment is, as always in any type of tuberculosis, rest of body, mind, and joint, with the usual adjuncts of general body building.

Rheumatic Fever

THIS disease is also known as inflammatory rheumatism. It strikes suddenly, roams from joint to joint, is accompanied by fever, sweating, pain in joints and muscles,—the discomfort that accompanies a general infection.

Now if you will follow me, we will go into the hospital ward and see a patient with acute rheumatic fever. Here we observe a little chap about twelve years of age, with his face flushed, his breathing hard and rapid, his chest wall bulging with the throbs of a racing heart, his left knee, right ankle, right wrist, and elbow flannel-wrapped, and everything reeking with the smell of wintergreen.

Doctor: Is your throat sore, son?

Patient: Yes, doctor, I had tonsillitis before my joints began to hurt.

Doctor: Just note that fact,—he was just getting over an attack of tonsillitis when this hit him. We look at his throat and see some huge red tonsils. We unwrap his knee with great care, for the slightest movement brings pain. The knee is badly swollen, red, hot to the touch. We listen to his excited heart, and we hear things we do not like,—there is evidence of an inflammation in the heart, and unless the disease is quickly halted, some irreparable damage will be done the valves.

Mr. Average Man: What have the tonsils had to do with this illness?

Doctor: Probably plenty. As soon as it is safe, this boy's tonsils will be put in a bottle, and we hope he will thus be saved from a second attack. The very serious part of rheumatic fever is that the heart is always hit by it, and many heart cripples today owe their invalidism distinctly to diseased tonsils. You see, the same germ that causes the joint inflammation also causes the heart inflammation, and the common source is the tonsil.

Mr. Average Man: If the tonsil is responsible, why is it that a person will sometimes have a second or a third attack after the tonsils have been removed?

Doctor: That is a reasonable question and might seem hard to answer, but really it is not. The infected tonsil spreads and dis-

tributes its germs and poisons to lymph glands scattered along the windpipe. There the germs that cause rheumatic fever take up housekeeping again, away from any danger from prying and critical eyes and surgeons' designs. The tonsils in which the germs have been incubated and grown may be out, but those tonsils stayed in long enough to have allowed for shelter of the offspring in other hidden spots; from these other sources infection springs when the patient is run down and in poor trim. We remember a girl who had a severe attack when she was six years of age. The tonsils were removed and she enjoyed splendid health for a good twelve years, and then, bang!—she was down with another very severe attack of rheumatic fever. What was back of it? It was her first year in college; she was away from home, batching it, struggling to get by on a pittance, working much of her way, and pitifully tired. Her resistance was down, unable to hold lurking infection in abeyance. Here is another proof that right living is necessary for physical safety.

Heart clinics are educating parents to take seriously the finding of septic or diseased tonsils in Johnny or Mary. If tonsils are diseased, they should be removed, for they are unquestionably a potential danger, an ever-present source of germs that are capable of cutting in on the life expectancy of the child. It is not only the very acute conditions, such as inflammatory rheumatism, that the tonsils may be associated with in injuring the vital capacity of the heart; but the heart is often subject throughout life to a very subtle infection from the tonsils alone that withers valves and debilitates muscle. Parents should watch for "growing pains," or aching in the legs, usually at night. That too is rheumatic—very, very mild rheumatic fever.

Fortunately, these folks usually get over their troubles with intelligent care. It requires internal medication with a salicylic acid preparation, local heat, immobilization of the joints involved, and, above all, absolute bed rest. The fomentation (moist heat) is of great value. A set of fomentations to a joint is followed by the application of oil of wintergreen, and the part is carefully wrapped in cotton and flannel. Although we do not choose to advocate the use of drugs, we are compelled to recognize salicylic acid as almost a specific. It is usually given in diminishing

dosage for weeks after all symptoms have subsided, and then during the fall and winter months—the period of susceptibility to relapse—a short course every month is advisable. Needless to say, it should be given only under supervision of the physician in charge.

The convalescent period is to be carefully measured, for, remember, the heart has been hurt in this disease, and extreme caution must be exercised in the getting-up process. A good rule to follow is to keep the patient at rest in the recumbent position as long as the heart rate reaches or exceeds one hundred in the sitting or erect position.

Bones of the foot (right) in a patient with arthritis deformans of five years' duration, as compared with the bones of a normal foot (left). Note the "eating away" of the bones at the joint ends, and the dislocation of the metacarpal bone at the base of the great toe.

Gout

THIS is very distinctly a disease that is due to bad eating habits, either in the patient or his forebears. If you have fallen heir to a predisposition to gout, you simply will find that you will be a victim of the disease a little earlier by reason of your wanton habits than otherwise, for between fifty and eighty per cent of these patients have a gouty ancestry.

The disease will probably be on the increase by reason of increasing alcoholic consumption,—not so much from hard liquor either, as from beer and wines. Dietetic errors lie along the lines of quantity as well as quality. Those types of food which are particularly heavy in certain chemical waste products are apparently causative of gout,—kidneys, liver, tripe, sweetbreads, coffee, tea. These foods surcharge the blood with uric acid to such a degree that when symptoms of gout are announced we know that in and about the painful joints there are deposits of sodium biurate.

The pain usually comes on at night, and quiets in the daytime to return in all violence again after the fall of darkness. The ball of the great toe is the usually selected point, but ankles, knees, and small joints of the hand and wrist may be involved. The symptoms are suggestive of an acute infection,—swelling, heat, redness, and increase in white cells of the blood. Serious gastrointestinal and kidney complications may arise capable of causing the attack to be a fatal illness. Remember, the disease is due to a piling up of toxic elements from overeating, and liver, kidneys, and heart have been seriously overtaxed for a long period. It is not to be wondered at, then, if the explosion of gout is not the signal for a general physical upheaval with death just ahead.

From this it would appear that the individual who eschews alcohol, coffee, and tea, and lives on a vegetarian program which includes milk and eggs, will rarely be a victim of gout. One attack of this disease should serve as a warning to the patient that his habits should be permanently altered in harmony with the demands of simple, healthful living. The treatment further involves a general cleanup,—sweats, local heat, massage, certain medicinal agents prescribed by the physician. But above all the cause must not be overlooked,—alcohol, tea, coffee, overeating.

Diet for Chronic Arthritis

First General Principle.—Adequate protein is an absolute essential. It is estimated in grams by the following formula: Weight of patient divided by 2.2 times ¾. (This must be estimated on normal weight for height as detailed in Second General Principle below.) Example: Weight 132 pounds. 132÷2.2=60. ¾ x 60=45. This is the number of grams of protein required in 24 hours. The following table will show you how to interpret grams in terms of kitchen-utensil portions, and the rest is simple addition.

Foods	*Portions*	*Grams of Protein*
Beans (dried)	1 tablespoon	2
Bread	1 slice	3
Buttermilk	1 glass	7
Cereals (cooked)	1 tablespoon	1
Cottage Cheese	1 rounded tablespoon	4
Cream Cheese	1 tablespoon	4
Corn (creamed)	1 tablespoon	1
Custard	1 cup	4
Egg	1	7
Fruits	3 tablespoons	1
Ice Cream	Average serving	3
Lentils	1 tablespoon	2
Meat (lean)	Average serving	12
Milk (whole)	1 glass	6
Nut Meat	½ average slice	7
Nuts: Pecans	5 large	1
Almonds	10 large	3
Walnuts	5 medium	3
Peas (dry)	1 tablespoon	3
Peas (green	3 tablespoons	2
Peas (canned)	3 tablespoons	2
Peanut Butter	1 tablespoon	2½
Shredded Wheat	1 biscuit	2½
Soup: Bean	1 cup	6
Cream of Pea	1 cup	6
Macaroni and Cheese	2 tablespoons	7
Vegetables	3 tablespoons	½

Second General Principle.—Sugars must be drastically curtailed. Starches and fats should be determined by your weight. To roughly determine what your normal weight should be, use the following formula: For a height of 60 inches, the normal weight is 110 pounds. For every inch above 60 inches add 5½ pounds; then for women, if small-boned, deduct 5 pounds, for large men, add 5 pounds. Weigh each week on standard scales and adjust the intake of bread, potatoes, gravy, cream, and butter to the reading of the scales. Decrease the intake if overweight, or increase it if underweight.

Third General Principle.—Ample bulk: fruits, vegetables, coarse grains.

Fourth General Principle.—Liberal vitamin- and mineral-containing foods.

B, C, and D are the most important vitamins for rheumatism. B from vegetables, eggs, outer coating of grains (wheat germ), yeast. C from orange juice, grapefruit juice, tomato juice, and vegetables. D from eggs and cream.

Calcium and phosphorus are the most important minerals. Adequate calcium for 24 hours may be had in 1 pint of milk, or 1 glass of orange juice, or a large serving of green vegetables, or 1 large tomato. Adequate phosphorus for 24 hours may be had in 1 pint of milk, 1 serving of eggs, wheat cereal, beans, or whole-wheat bread.

24-Hour Balanced Diet for Adult

a. Grains: Foods from wheat, corn, barley, oats, rice, rye. Requirement: 3 to 4 slices of bread or equivalent. One slice of bread is approximately equivalent to one of the following: 1 serving of cereal, 1 roll, 1 muffin, 4 crackers, 2 tablespoons of macaroni. For cereal I would suggest wheat germ, which may also be used in making muffins.

b. Eggs: Average of one a day, not including those used in cooking.

c. Meat: Meat is not the best food, and is not essential for bodily maintenance if other foods are used according to suggestions. If meat is used, limit to three servings a week, and alternate with nut foods. (See "e.") Protein requirement may be entirely

met by nut foods, milk, legumes, eggs, cottage cheese. (For your requirement see First General Principle.)

d. Cottage Cheese: One heaping tablespoon twice a week.

e. Nuts: Walnuts, peanuts, peanut butter, nut roasts, prepared nut food. See recipes following. Prepared foods: Savory Loaf, Nuttolene, Protose, Nut Meat, Nuttene. Roasts or prepared foods twice or three times a week, with whole nuts and peanut butter as advised.

f. Vegetables: Cooked—at least 2 servings (3 tablespoons per serving). Salad—at least 1 large serving. Potato—1 a day.

g. Legumes: Dry beans, Lima beans, soybeans, peas, lentils. Three tablespoons three times a week. (May alternate with nut preparations and roasts.)

h. Milk: Whole milk, skimmed milk, buttermilk. Three glasses a day.

i. Fruits: Twice a day, liberal servings, preferably at breakfast and lunch.

j. Water—4 to 6 glasses.

This diet provides approximately 50 grams of protein, and between 2,000 and 2,500 calories. This is sufficient for light work or sedentary activity. For the invalid it may be advisable to cut the total calories further on advice of the attending physician.

Nut Food Recipes

Savory Loaf Croquettes

1 cup Savory Loaf mashed with a fork
2 eggs
1 tablespoon chopped onion
1 large tablespoon butter
1 small teaspoon sage
Bread crumbs
1 cup cooked natural rice

(Savory Loaf is a prepared nut food supplied in tins.)

Simmer onion, butter, and sage on stove till light brown. Add onion mixture to Savory Loaf and 1 egg, unbeaten. Add 1 cup cooked rice. Stir in with fork. If too moist to mold with hands, add a few bread crumbs. Mold into small rolls, dip in beaten egg, and then roll in bread crumbs. Repeat dipping and crumbing. Fry in deep fat like doughnuts. Serve with any kind of gravy desired, or with jelly.

Walnut Roast

1 cup zwieback crumbs
1 cup milk
½ cup ground walnuts
1 cup steamed rice
3 tablespoons chopped onions
1½ tablespoons butter
1 tablespoon flour
1 egg

Pour ¾ cup of milk over the crumbs and let stand for 5 minutes. Put butter, onion, and pinch of savory, if desired, into a small saucepan and let simmer until the onion is softened but not browned. Add the flour and stir, then add the rest of the milk and stir smooth. Add then the slightly beaten egg, the ground walnuts, and lastly the rice.

Gluten Roast

8 cups of flour
3 to 4 cups of water
1 cup ground walnuts
1 medium onion, ground
½ cup Crisco
1 large egg
1½ teaspoons salt

Make stiff ball of the flour and water. Cover with water. Soak 1 hour at least. Wash out starch and run the remainder—the gluten—through grinder.

Mix the other ingredients thoroughly and add to the gluten, mix well, and run through grinder once more. Place in roaster. Lay 3 bay leaves on top. Add 2 cups boiling water with 1 teaspoon Vegex dissolved in it. Cover tightly. Bake 30 minutes in hot oven. Then reduce the heat. Bake 1 hour longer. Serve with gravy or sauces, or cold in sandwiches.

Prepared Nut Foods: Savory Loaf, Nuttolene, Protose, Nut Meat, Nuttene—may be fried with gravy or served cold sliced, with or without sauce. Excellent for "Nutburger" sandwiches.

Scientific Treatment Plus Patience

IF WE have given you a helpful insight into the problem of rheumatism and a few facts that will enable you to put yourself or your neighbor in understanding hands if trouble of this sort comes your way, we shall feel repaid for the effort. We hope that our discussions have convinced you of at least two points:

1. Arthritis is not just another sore joint,—it is a sore joint of a specific type, and for proper treatment needs accurate diagnosis. Many of the bad endings seen in arthritis cases are due to ignorance, for rheumatism usually receives neighborhood treatment and down-town quackery until much permanent damage is done.

2. There is no royal road to a cure—it takes time and a lot of it; it takes patience in huge doses; it takes co-operation.

And one thing more: It may offer a bit of hope for some poor sufferer to learn from authentic statistics that rheumatism is not the hopeless sort of thing we once thought it to be. In a great metropolitan arthritis clinic some three thousand rheumatics were discharged last year with treatment complete. Of this number a little better than 51% were cured, more than 35% were definitely improved, and only 13% had slight improvement or no change. Splendid, isn't it! So you folks with the creaky joints, find a good doctor and stay everlastingly with him until you are assured that you belong permanently in one of the three classifications: cured, better, or among the 13% who remain bent but happy.

THE HEALTH BUILDER SERIES

Price, 10 cents each

Influenza and Pneumonia
Rheumatism and Arthritis
The Balanced Diet

ATTENTION!
Arthritis Sufferers

ARTHRITIS is not just another sore joint. It is a sore joint of a specific type, and for proper treatment needs accurate diagnosis. Many of the bad endings seen in arthritis cases are due to ignorance, for rheumatism usually receives neighborhood treatment and down-town quackery until much permanent damage is done.

There is no royal road to cure in arthritis—it takes time and a lot of it; it takes patience in huge doses; it takes co-operation with your physician.

Modern diagnosis and methods of treatment have taken much of the terror out of arthritis. If you will do your part, modern medicine will do its part.

PRINTED IN U.S.A.

Arthritis

ARTHRITIS, or joint rheumatism, like a wicked jinny, has laid its malevolent hands upon more than one hundred thousand persons in the United States, twisted their fingers so they have the appearance of claws, inflamed, enlarged and immobilized their joints, atrophied their muscles, deformed their bodies, wracked them with pain, confined them to a wheel chair or made them bedridden, or by making a savage attack upon the heart greatly lessened their life expectation. Nine hundred thousand more of its victims, badly handicapped physically, are still able to get about, though many with painful, halting steps.

Arthritis is not a new disease. It afflicted man long before the dawn of recorded history. Changes in the bones of Egyptian kings, as revealed by examination of royal mummies, show that these ancient monarchs suffered from arthritis. The ancient Greeks and Romans also experienced its crippling effects.

The causes of arthritis are many and varied. Climate seems to be an important factor. Arthritis is practically unknown in the tropics or dry, warm countries, but is especially rampant in many of the wet and cold regions of the temperate zone.

Many persons in poor health have a subnormal temperature some time of the day, if not all the time. They can not bear cold, chill easily and offer a very poor defense against arthritis.

Prolonged inactivity, such as lying in bed following a long illness or a surgical operation, is sometimes followed by arthritis, especially if graduated exercises are not instituted to increase the patient's strength and prevent immobility of the joints.

Attention has recently been called to the fact that in more than half of the cases of arthritis, tenderness is found along the course of the colon, suggesting the presence of infection in this organ. This indicates that in every case of arthritis, hygiene of the colon should receive careful attention.

Arthritis sometimes follows accidents, especially when joints are injured, but its appearance may be delayed for some months after the primary injury has entirely disappeared. In such cases the joint affection is termed "traumatic arthritis."

The skin contains more than ten thousand square feet of blood vessels which are capable of holding one-third of the blood of the body. With this fact in mind, it is not difficult to understand why some authorities regard disturbances of the skin of such great importance in causing arthritis that they refer to it as one manifestation of skin disease. The skin has lost its power to defend itself against cold. The efficiency of the temperature-regulating function of the body is impaired.

Some authorities believe that a tendency to the disease may be inherited, that is, some persons have a constitutional predisposition to the malady. They should be especially careful to avoid any of the causes which are known to be contributing factors in causing arthritis.

When foci of infection, especially diseased teeth and tonsils, were found to be a cause of arthritis, some physicians prescribed removal of the tonsils almost as a routine measure, and their prescriptions also rendered many arthritics toothless. While most gratifying results were seen in some cases, others showed no improvement, so it was soon apparent that this form of treatment is by no means a panacea.

In trades which require excessive use or strain of joints or muscles, the injured articulations are frequently subject to arthritis. Blacksmiths, miners, carpenters and bricklayers suffer from disturbances of joints and muscles which are most used. Workers in cold storage plants, ice houses and other establishments where low temperatures prevail and the air is heavily laden with moisture are especially liable to contract the disease, while furnace stokers, glass blowers and others whose occupation exposes them to high temperatures are singularly free from it.

While the most commendable campaign which is being waged against infantile paralysis is receiving wide publicity and the hearty financial support of the public, another malady, acute rheumatic fever, which is far more deadly and claims a greater number of victims, is hardly mentioned in the public press. This disease, like infantile paralysis, usually attacks children and frequently causes such great damage to the heart that the life expectation of the patient is greatly reduced. Ju-

venile acute rheumatic fever is often associated with poverty, and is therefore regarded by some authorities as of dietetic origin, at least to some degree.

Arthritis is a very stubborn malady which clings tenaciously to its victims and can not be dislodged easily. A great variety of drugs have been used in its treatment, some of which achieved a degree of popularity for a time but were soon forgotten. That arthritics are likely to be troublesome and tedious cases for the general practitioner is well illustrated by the facetious remark of a waggish physician who declared, "The best way to treat rheumatism is to send the patient to another doctor."

While there are many different kinds of "rheumatism," some of which affect the skin, others the muscles, others the bones, and still others the nerves and other parts of the body, arthritis or chronic inflammation of the joints, is the most common form and therefore is the chief subject of discussion in this article.

Many arthritics are despondent and depressed because of the pain they suffer and their fear of a life of invalidism. A pessimistic attitude is a great handicap and plays a major rôle not only in perpetuating the disease, but in so greatly negativing the effects of treatment that no improvement may be seen in the patient's physical condition until his mental outlook is more optimistic. The arthritic must cultivate an attitude of hope and resolutely face his foe with the determination to fight a winning battle, in which he may enlist the aid of the vast array of powerful curative weapons provided by modern science.

As we have seen that arthritis sometimes is an aftermath of accidents, it is not surprising that the hands, because of their greater liability to injury than other parts of the body, are one of the most frequent sites of this disease. The first symptom noted, slight stiffness of the joints of the fingers when dressing in the morning, should be regarded as a danger signal and calls for prompt, thoroughgoing and persevering treatment.

Heat kills pain, especially the pain of arthritis, and may be employed to good advantage except when the temperature of the skin of the affected parts is raised, indicating active inflammation. The hands should be repeatedly immersed, night and morning, in water as hot as can be borne, 110 to 115 degrees F., the fingers well lubricated with soap and every joint thoroughly massaged. Each finger should be put through its full range of motion many times a day to combat stiffness of the joints. By wearing a pair of loosely fitting cotton gloves which have been wrung quite dry out of cold water, over which is worn a pair of waterproof gloves to prevent evaporation, the good effects of the treatment will be enhanced. The gloves should be applied immediately after finishing immersing the hands in the hot water and while they are still red. The effect of the wearing of the two pairs of gloves is the same as that of a skin poultice. In this way, the blood vessels of the skin of the hands are kept well filled with blood, and so the good effects of the hot applications may be greatly prolonged. This simple treatment, thoroughly and perseveringly applied, may not only prevent a threatened attack of arthritis, but may to a marked degree alleviate this condition, especially in cases in which the mobility of the fingers has not been lost.

Institutional treatment offers the best hope for the arthritic patient. The plan of management originated by Doctor John Harvey Kellogg and exemplified in practice at the Battle Creek Sanitarium has met with considerable success. In addition to proper diet, other measures employed are hydrotherapy; sunshine, natural and artificial; electric light baths, local infra-red applications, diathermy; the heating compress; carefully graduated exercise, passive and active; automatic exercise, correction of postural defects to as great an extent as possible; and the cultivation of a hopeful mental outlook. Each case is treated individually and the treatment changed from day to day to meet existing conditions.

The dietary should be low in protein and rich in vitamins, especially vitamin C. Generous doses of vitamin D are sometimes helpful. Overweight arthritics will find it advantageous to regulate their food intake in such a way as to secure a reduction in weight, which will tend to lessen the severity of symptoms by decreasing the pressure on some joints incident to supporting the weight of much useless fat. Tea, coffee, condiments, and alcoholic beverages should be avoided. Pastry, pie, cake and rich desserts, especially those which when burned in the body leave an acid ash, are all harmful. Root vegetables are rich in alkaline salts and therefore are excellent for arthritis. One of the best basic foods is the potato. It may well to a large extent take the place of breads and breakfast foods. While spinach and beet greens contain oxalic acid, mustard greens, dandelion greens, and turnip tops are free from this disturbing element, and because of their richness in iron and vitamins should be used freely. The tomato, long regarded as a cause of rheumatism, even cancer, by some unscientific writers, has been shown by careful studies conducted in nutrition laboratories to be not only entirely innocent in this respect but is an exceedingly good food.

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The Sanitarium News Bulletin

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MOTTO: The straight road to happiness: Think straight, see straight, act straight.

Rheumatism and Its Complications

Thomas C. Smith, M.D.

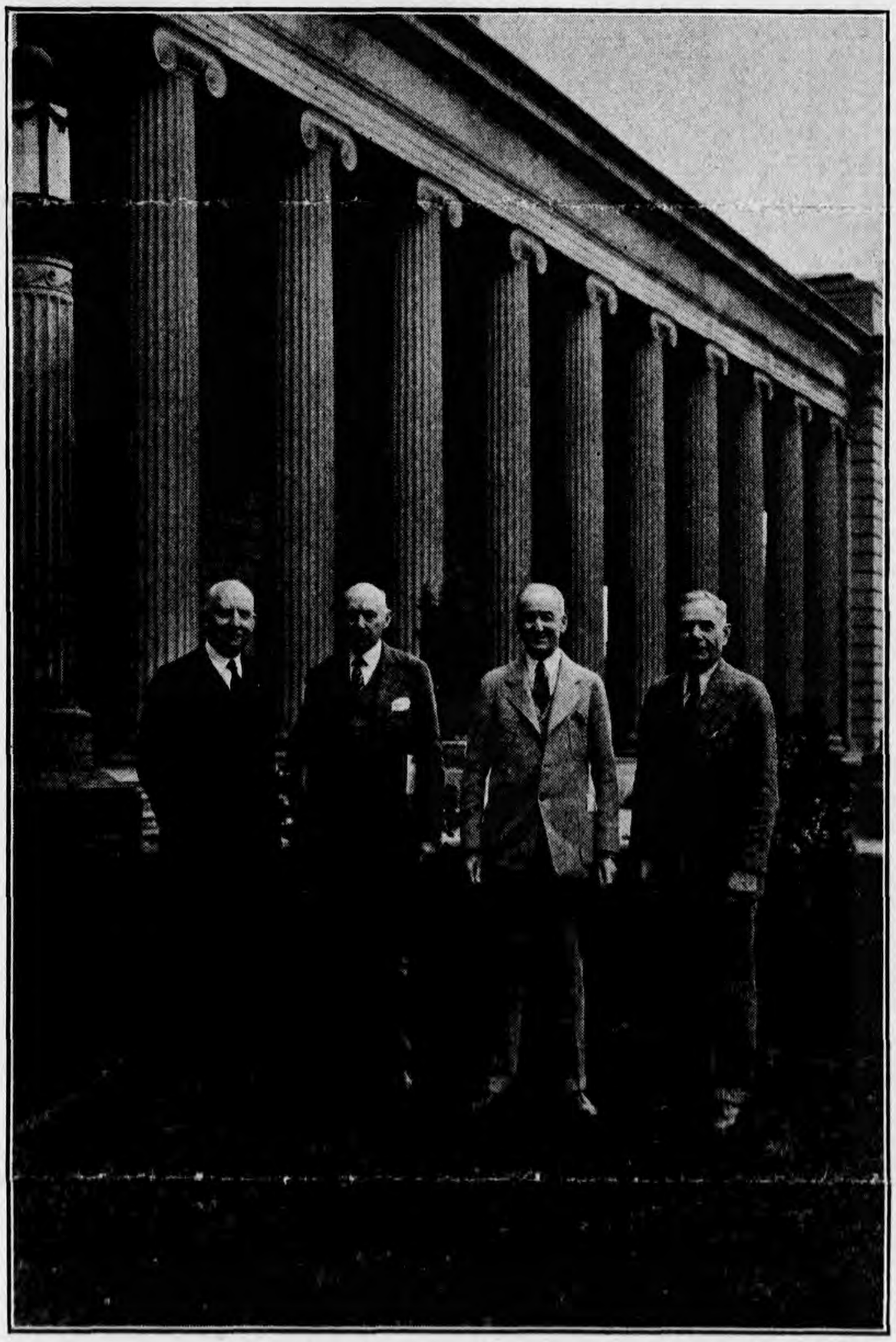
Rheumatism, the disease par excellence of the ancient Egyptians, remained a baffling and refractory problem as far as treatment was concerned up until fifteen years ago. Human remains of the stone age indicate very clearly that it must have been a source of suffering among the human beings of that period. More recently it has been recognized under various names, lumbago, sciatica, rheumatoid arthritis, arthritis deformans, infectious arthritis and the like.

Causes

The causes of rheumatism were long in doubt, although for centuries the relation of it to cold and dampness have been recognized. The outstanding and most significant advances have been due to the recognition of focal infections. Infections of tonsils, sinuses and teeth, which do not give rise to any particular symptoms, may undoubtedly act as potently as do flagrant outstanding conditions. It is probably due to this fact that their relation to rheumatism remained unrecognized for so great a time. It must not be supposed that such focal infections constitute the only cause of rheumatism, as a matter of fact a large variety of diseases of an infectious or inflammatory nature may act in an analogous way. Rheumatism has been found to occur either during or following an attack of influenza, pneumonia, meningitis, colitis (diarrhea), scarlet fever, social diseases and many other such disorders in the same way and to the same degree as that due to focal infection in tonsils, teeth and sinuses.

Susceptibility

Rheumatism affects chiefly individuals at or past mid life, although childhood and the later decades are by no means immune. The infectious products are absorbed and taken up by the circulatory system blood stream and distributed to such points of predilection as the cartilage between bones, the valves of the heart and other points where its devastating and perilous work begins. In the cartilage between the bones it sets up a destructive process destroying the cartilaginous cells until finally the proximate bones come in contact with each other. The irritation thus caused by these two bony contacts stimulates the formation of bone cells which form a bony union with fixation of the parts, known as ankylosis. This ankylosis is evidenced by limitation of movement of the joint and gives rise to such terms as rheumatoid arthritis and arthritis deformans. When such ankylosis or bony union occurs in the spine we frequently find impingement upon the spinal nerves emerging from the spinal cord, which gives rise to a neuritis or inflammation of these nerves. Other terms applied to this particular neuritis are radiculitis, an inflammation of the root of the spinal nerve, and intercostal neuralgia, an inflammation of the nerve as it extends around the trunk in its course between the ribs. Occasionally with this type we find an accompanying rash in the distribution of this nerve. On the valve cusps of the heart these organisms or bacteria are lodged. The predominating types of these bacteria are the so-called streptococcus hemolyticus and streptococcus viridans, two virulent types of organisms. Once lodged upon the valve cusps of the heart they set up an inflammatory reaction which ultimately results in vegetative growths which interfere with the normal functioning of the valves and throw more work upon the heart muscle in overcoming this obstacle. The heart muscle then begins to lose its tone, gradually weakens, and we find such complaints as pain over the heart, shortness of breath, rapid, feeble and intermittent pulse, palpitation and fatigue. Not infrequently is the sac (pericardium) containing the heart invaded by these organisms, and an inflammatory process known as pericarditis is set up which interferes with the normal functioning of the heart.



Four Friends of the Sanitarium: Messrs. A. W. Grabe, A. W. Stark, C. F. Huline and B. F. Huline

Insidious Onset

As a rule rheumatism has a very insidious progressive onset, usually without knowledge of the individual and the X-ray may show bony changes at sites (joints) which had not been supposedly involved. In the smaller joints particu-

larly, it may show itself by swelling, redness and the sense of heat in the surrounding soft tissues. The individual may present signs varying from slight bony changes in the fingers to deformities, the result of involvement of the larger joints necessitating confinement of the individual to a wheel chair or bed.

Search for Focal Infections

The examination and treatment of rheumatism at whatever stage are incomplete unless full consideration is given to the individual's habits and to the important relation of focal infection. The search for focal infection must include consideration of nearly every part of the human body including such regions as the respiratory, genito-urinary and gastro-intestinal canal. From recent research there is no question but what indigestion from whatever cause may give rise to products similar to those caused by focal infection. In a large number of patients suffering from rheumatism many abnormalities of the colon have been found upon X-ray study, following the administration of a barium meal or an opaque enema. Marked improvement not only in the adjustment of the colon but also in the rheumatic condition has been noted following a correction of the patient's habits, particularly his diet. This has been accomplished in two ways: first, by the administration of vitamins, and secondly, by a change in the balance of the diet. Foods high in vitamins are fruits, vegetables, cream and butter. The effect of diet in such cases may then be very real in restoring conditions favorable to normal digestion. Fresh air, an appropriate diet, attention to the bowels and digestion, avoidance of exposure and the constructive tonics are always of importance. The frequent failure of all types of medication has led us to the view that medicinal agents of whatever kind have little or no value. There must be a foundation of health established.

Treatment

The institution of hydrotherapy dates from ancient times and it is the form of treatment in which heat has been the longest and most widely applied. The subjection to heat must be repeated daily for a matter of weeks in some cases, depending upon the degree of involvement. The electric cabinet and wet pack are both very effective, the former particularly so, because of the higher temperature it induces.

During the summer months we have found the sun's rays very beneficial as a constructive tonic while in the cooler months much benefit is to be derived from the daily graduated exposure to the arc light.

Massage is a very important aid when properly applied. There is no single agent in the general treatment of rheumatism productive of more harm when misapplied. Massage has two functions, first to increase the blood supply to the affected part, and secondly, to replace or augment the effects of exercise in wasted muscles or those which are kept at enforced rest.

Diathermy

Electrotherapy, particularly diathermy (deep heat) is very beneficial in forcing heat to the deeper structures not penetrated by other methods. In a large number of cases it has been found almost a specific. The ease of application, the precise localization at any one point and the undoubted benefit in mild and borderline cases make this form of therapy a real adjuvant in rheumatoid conditions.

Great care must be exercised in the later stages of the disease when it becomes chronic. Faulty positions usually result in aggravating ill health. These faulty positions crowd the intestines in the abdomen, preventing normal expansion of the chest and full respiration by their pressure effects upon the diaphragm, a muscle which separates the abdomen from the chest. This also interferes with the normal motility of the intestinal contents.

In closing let me again emphasize the necessity of the removal of all possible sources of focal infection, whether it be infected teeth, tonsils, sinuses, appendix, gallbladder, fallopian tubes, prostate gland or other sites. Then the application of the above therapeutic measures, namely: hydrotherapy, heliotherapy, massage and electrotherapy, with special attention to diet and proper intestinal elimination will result very materially in ridding ourselves of this most distressing disorder.

Just Smile

If the weather doesn't suit you,
Just smile.
If someone should dispute you,
Just smile.
If some angry words are spoken,
Do not think a friendship broken,
Just smile.
If bad luck seems to hit you,
Just smile.
And lots of trouble gets you,
Just smile.
If we look, we're sure of finding
That dark clouds have silver linings,
So just smile.
If you wake up with a grouch on,
Just smile.
If you've not much cash to vouch on,
Just smile.
For life is what we make it,
And it's cowardly to shake it,
For it doesn't cost a penny,
So just smile.

—Velma M. Bonton, in Blade and Ledger.

Never explain. Your friends do not need it and your enemies will not believe you anyway.—*Elbert Hubbard.*

Have a Smile

A noted physician says that the best reducing system is described in four words: "No more, thank you."—*Sherman (Texas) Democrat.*

"Robert," said his mother sternly, "I am going to give you a good whipping, not because you broke that window with your ball, but because you broke your promise to me that you wouldn't play ball near the house."

"Aw, Ma," whimpered Bobby, "Can't you do it for breakin' the window? Dad'll have to lick somebody for that."

Mrs. Newlywed: "We hadn't been married a week when he hit me with a piece of sponge cake."

Judge: "Disorderly conduct. Five dollars and costs."

Mrs. Newlywed (sobbing): "And I'd made the cake with my own hands."

Judge: "Assault with a deadly weapon—one year."—London Chronicle.

Wonder of Science

Father: Now I want to put a little scientific question to you, my son. When the kettle boils, what does the steam come out of the spout for?

Son: So that mother can open your letters before you get them.—*Wrexham Advertiser.*

How it Appears

The farm problem now appears to be how to make one stalk grow where two grew before.—*Norfolk Virginian-Pilot.*

For Bears Exclusively

A western editor speaks of the "dens of Wall street." He is apparently well informed, and knows that you seldom see a bull in a den.—*Boston Herald.*

The Kid: "Pop, how soon will I be old enough to do as I please?"

The Old Man: "I don't know. Nobody has ever lived that long yet."—*Troy Times.*

Marvels of Science

A scientist is a man who can find a section of petrified thigh-bone and tell that its primitive owner had a receding chin.—*Calgary Herald.*

"How did you come to raid that barber's shop?" the dry agent was asked.

"Well," he replied, "it struck me kind of funny that such a lot of fellows should buy hair restorer from a baldheaded barber."—*Boston Transcript.*

Questions and Answers

Question: How long does it take to recover from a thyroid operation?

Answer: Patients usually leave the hospital at the end of a week or two, and ought to be able to work again in the course of a month or two, according to the circumstances of the case.

Question: What is the cause of cancer?

Answer: The direct or definite cause of cancer remains at the present time a secret of nature. It is well known that irritation of almost any kind seems to provoke the development of a cancer. A good example is the use of a clay pipe in the production of a cancer of the tongue or the lips. But the hot smoke with its numerous irritating qualities must be regarded as a definite provocative of cancer in the region of the mouth. The free use of cathartics and purgatives is believed to favor the development of cancer in the alimentary canal in the course of time and should therefore be strictly avoided.

Question: Is there any cure for cancer?

Answer: Yes, provided the cancer is accessible and can be removed in the earliest stage, that is, before it has had time to spread. Epithelioma or cancer of the skin is usually readily cured by a skillful operation or by burning away with the electrical current. But the only safe cure for cancer is not to have it.

Question: I have big bunions on both of my toes. Do you advise removal by surgery? Will the result be good and will I be able to walk just as well after the operation?

Answer: The treatment the big bunions need could only be decided after a careful examination by the surgeon, and he might not advise an operation. The results are uniformly good and one ought to be able to walk just as well, if not better, after the wounds are completely healed.

Question: What is the best method of taking care of varicose veins?

Answer: In very mild cases, the wearing of suitable elastic stockings will add to the comfort and control the condition. But when the veins are large, and when it is difficult to control them by elastic stockings, then injection is recommended and has been found very satisfactory. Various solutions such as one of ordinary salt have been used successfully in curing this disorder.

Question: Is there a cure for phlebitis and is this cure given at the Sanitarium?

Answer: The Sanitarium is well prepared to treat phlebitis, whether acute or chronic. In almost all cases one can look forward with confidence to recovery.

A Friendly Letter

My Dears, Who Spread Sunshine in a Tiny Corner of the —— ——:

My Obituary, Life Prophecy or Description of one —— ——, which may some day prove of great benefit in identifying the remains or agree with a likeness in the Rogues' Gallery, has arrived. Many thanks for your trouble and the nice friendly letter. It does make one feel good to know that they are missed and that they have formed friendships of which all were not temporary, even though there were times when I, your patient, would be at "fever heat," not from temper but from that ever-present toxic condition, which has been with me so long it seems a part of my being. You and your two assistants were so patient with me and you made my stay most pleasant with your words of cheer and comfort, not mentioning the lovely gloxenias, etc. I am following all instructions as carefully as possible. My nurse comes two hours each morning, gives fomentations, irrigations, etc. Spend three hours on an improvised open gymnasium, where the sun on these hot banks of the Ohio beats with great intensity and I soon will be called an Armenian or perhaps a daughter of the Sun. I hope some day to return to the Sanitarium for I did enjoy the atmosphere of it and do feel that I derived benefit from it.

Kindest regards to you all,

—— ——.

Household Note. Tons of sugar are wasted annually in the bottom of cups. This information should create quite a stir.

Things are seen by the eyes only after they are appreciated by the heart.

Insomnia in Children

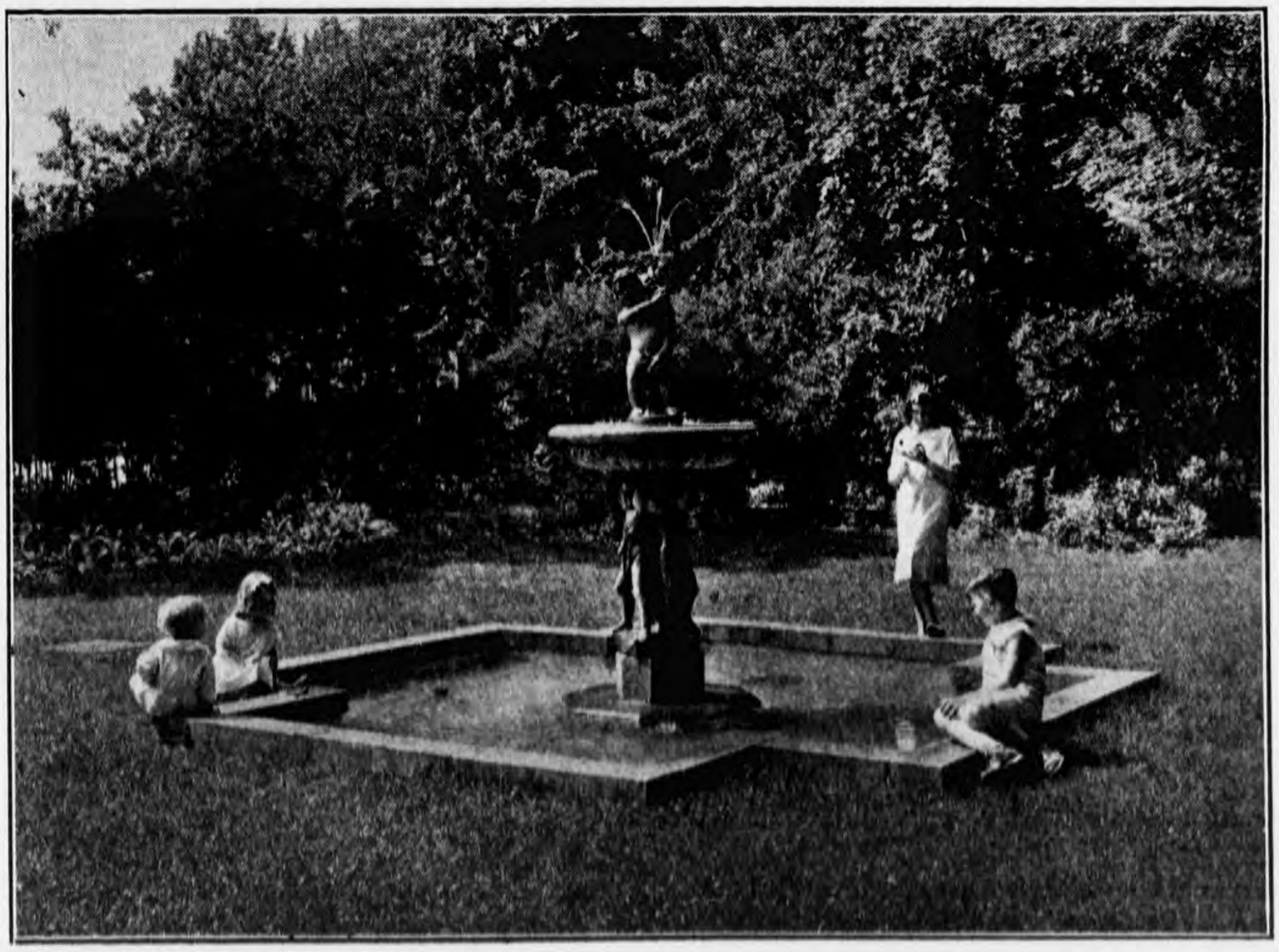
"In regard to the treatment of sleeplessness, the most important point is to exercise every possible precaution in order that unnecessary nervous excitement late in the day may be avoided. Prohibit all school work after five in the evening; do not allow the child to read or to be read to after six; insist on a very light meal in the evening. After this meal the child is to remain awake for at least an hour and may indulge in some simple game or should be allowed to frolic about in a quiet manner."

In an age when the spontaneity and initiative of individuals are being sacrificed to harmony and efficiency, we need to hear again that sturdy voice of Thoreau from Walden pond: "I will breathe after my own fashion." It is not what my neighbors think; it is what I think that matters. It is not what my neighbors do with their leisure; it is what I do with my leisure that is important. It is not the standards that my neighbors have; it is my standards that govern me. Their automobiles, their clothes, their beliefs, their ideas of right and wrong—these are for them; they do not belong to me.—*Raymond B. Fosdick.*

Knocking in an individual is just as much evidence of lack of power as it is in an automobile.

You can find an ideal wife. Just search until you locate one dumb enough to think you a wonder.

Where God is not, peace cannot come;
Where peace is not, God cannot come.
—*Erasmus.*



Lobby Notes

We have the pleasure of numbering among our guests at this time Dr. Gerard U. S. Gavernitz of Germany. Dr. Gavernitz has an enviable reputation as a scientist and educator. He is associated with Freiburg University, in Freiburg. It has been several years since Dr. Gavernitz visited us and we are indeed happy to have the privilege of welcoming him here again.

* * *

The Sanitarium had a very interesting visitor from India last week, Dr. T. S. Iyer, for many years an accountant engaged in government service. Dr. Iyer has completed his time of service and will now take up the practice of medicine, among his own people. Before doing so, he decided to spend some of his savings in a tour around the world for the purpose of visiting the various countries of Europe and also the States. Dr. Iyer is a Brahman, consequently a lifelong vegetarian, and the same is true of his parents. He is a tall, slender man, and his examination showed excellent health, both organically and functionally. His metabolism was perfect. The blood analysis, both chemical and physiological, showed normal conditions and the same was true of the urine analysis and numerous other tests. With the exception of an attack of malaria some twelve years ago, the Doctor has enjoyed excellent health all of his life. His experience and his long life of good health speak loudly for the fleshless diet. We might add that the Doctor is very abstemious, has never tasted liquor, smoked or taken tea or coffee, and confines himself to two meals a day, these consisting chiefly of fruit, vegetables and goats' milk.

* * *

Our old friend, Dr. Peter H. Lerrigo, of New York City, has been joined by his charming wife who will have her annual inventory. The Doctor is making a fine convalescence from a recent operation.

* * *

Another old friend of the Sanitarium, Mr. Edward M. Day, arrived Monday, to spend a few weeks with us.

* * *

The numerous friends of Dr. Katherine Gerow will be glad to know that she is making excellent progress, gaining strength and vitality day by day.

* * *

Mr. and Mrs. Thomas A. Peabody of North Manchester, Ind., arrived a few days ago to spend a little time with us.

* * *

What an interesting group of visitors we have from Winnipeg, Manitoba: Mr. and Mrs. Frank Shea, Mr. Patrick Shea, Mrs. E. W. Kneeland and Mrs. Charles J. Martin.

Mr. and Mrs. G. G. Dicker of Garden City, New York are among a group of interesting visitors to arrive within the past week.

* * *

It is good to have with us again some old-time friends who visit us every year, among them the Misses Mary and Harriet Moore of St. Clair, Michigan, and Mrs. Dena Maytag of Newton, Iowa.

* * *

Mr. and Mrs. Ricardo Narganes of Havana, Cuba, are among our recent arrivals. Mr. Narganes is a well-known sugar manufacturer of Cuba.

Cancer and Clothing

According to Dr. Joseph C. Bloodgood, professor of surgery at Johns Hopkins University, Baltimore, handsome women are almost immune from cancer of the skin. He says:

"Pretty women usually pay particular attention to the skin over their bodies, especially that which is exposed with low-neck dresses. It has virtually come to the point that less clothes mean a lesser chance for cancer.

"Women smokers he said, stand a smaller chance of contracting cancer of the mouth than men smokers, for they place more emphasis on care of the teeth."

The recipe for perpetual ignorance is to be satisfied with your opinions and content with your knowledge.—*Elbert Hubbard.*

Culture

Education keeps us out of a rut, it demands respect, and, of equal importance, it is a lasting pleasure. Education and culture go hand in hand. Culture is quite difficult to define, and I am confident that many times it exists in outward show and mannerisms only. A mother may teach her son to tip his hat to women and to stand in the presence of her guests, but he will not be cultured if he lies to her about his escapades or steals from his neighbors.—*Thomas G. Orr, M.D.*

Pain is God's Gift

"It is given unto us to suffer." The threshing floor is the Master's fullest definition of a normal life. "In this world ye shall have tribulation." It is in darkened chambers that God weaves His finest fabrics. The discipline of hard knocks has made moral Titans. Great men have been born in poverty. And yet sometimes we chafe at our limitations. There are times when we would disturb the symmetry of God's purposes. We fret, we fume, would shift our skins, would quarrel with our lot. Would we deny ourselves the fruit of discipline? Dare we quarrel with God's dispensation when we see the design, or would we wrestle with the mysteries when they are past finding out? Faith is at rest though it may see through a glass darkly, for it knows that some time the mists will have rolled away.—*The Ram's Horn.*

PROGRAM FOR THE WEEK

(November 6 to 12, Inclusive)

Morning Worship, daily 7:40 to 8:00.

HEALTH LECTURES, Mezzanine Parlor, 9.00 and 2.00 daily, except Saturday and Sunday.

HOME NURSING CLASSES, Women Nurses' Classroom, 4.00 daily, except Saturday and Sunday.

FRIDAY EVENING, 7:45. Song Service—Mezzanine.

SATURDAY EVENING, 8.00. Concert, Sanitarium Ensemble.

SUNDAY EVENING, 7.40. Song Service—North Lobby.

SUNDAY EVENING, 8.00. Address, "A Few Reflections." Prof. Emil Leffler, Battle Creek College.

MONDAY, TUESDAY AND FRIDAY MORNINGS, 9.30. Diabetic Cooking School.

MONDAY, TUESDAY, WEDNESDAY AND FRIDAY AFTERNOONS, 3.00. Foods Class.

MONDAY EVENING, 8.00. Question Box Lecture, Dr. John Harvey Kellogg.

TUESDAY EVENING, 8.00. Sanitarium Ensemble.

WEDNESDAY EVENING, 8.00. Lecture on the Disarmament Conference, by Dr. Ernst Jäckh, of Berlin.

THURSDAY EVENING, 8.00. Lecture by Dr. C. G. Wencke.

Diversional Therapy and Hand Craft Department, 6th floor (north lobby elevator)—10-12 and 2-4 daily, except Saturday.

ANNOUNCING

The Extension of "Packaged" Health To March 1, 1942

See Back Page

The BATTLE CREEK Sanitarium News

VOL. 13, No. 8-87 BATTLE CREEK, MICHIGAN

DAMAGE TO THE HEART
Prevention and Treatment

GRANT R. CURLESS, M. D.

IT is true that there are many more people with heart trouble than with the closest rivals—tuberculosis, cancer and pneumonia. But, nowadays, people with serious heart disease often live long, busy, happy lives, provided they have good medical advice and obey it. Many of these partially disabled individuals might have been spared even the slightest heart damage by proper living in earlier years. A timely recollection of elementary high school physiology about the workings of the heart would have indicated the pitfalls.

A Simple Case of Mechanics

The heart's enormous energy is one of the greatest miracles of creation, although its action involves mechanical principles of the simplest hydraulic pump. For a small organ, about the size of your clenched fist, it has great dynamic power and reserve strength. Working twenty-four hours a day, pausing only for a fraction of a second between beats, it pumps fresh blood into the arteries at a rate of 5 to 8 quarts per minute with the body at rest and over 6 times that amount during strenuous exercise.

This great amount of work that the heart can perform when required is its reserve capacity and is that vital quality which must be maintained at a maximum in order to meet the demands of daily life. Each organ and acting muscle has certain minimum requirements for fuel (oxygen) from the blood during different degrees of activity and for this a so-called "head of pressure" must be upheld by the "pump." If this demand cannot be met by the normal strength or reserve capacity of the heart, the body processes are required to slow down or collapse results.

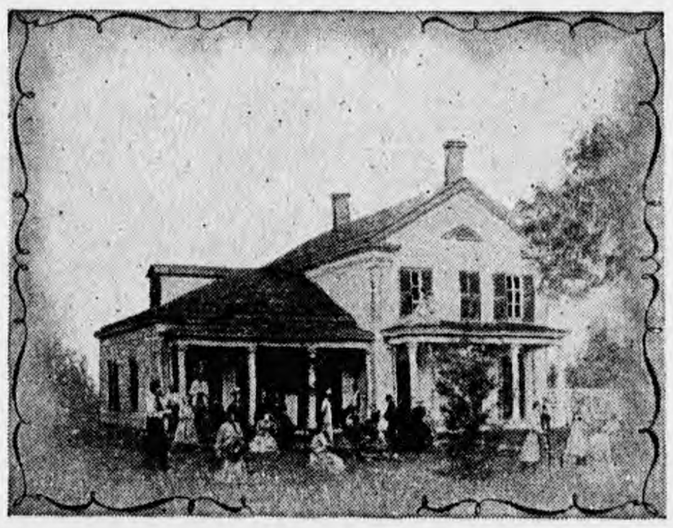
Common Heart Injuries

As mentioned in the preceding paragraph the ultimate effect of disease or injury on the heart is reduction of the

(Continued on page 3)

75th Anniversary
THE BATTLE CREEK SANITARIUM MARCHES ON

IN the fall of 1866 a small water cure known as a Health Institute was started in a little farmhouse at Battle Creek, Michigan, by a group of men who had been influenced by the teachings of Graham and his followers. During the first year fifty-three patients received treatment. Its success rapidly declined with that of others of its kind, and on Oct. 1, 1876, the present management was asked to take charge



In 1866

of the institution and consented to do so on condition that permission be granted to reorganize the work on a scientific basis.

One of the first things was to change the name, as well as the policy and methods of the institution. The old title was dropped for a new name, "The Battle Creek Sanitarium." The present management has always sought to make the work of the institution supplementary to that of enlightened and progressive practitioners, and to cooperate with every effort for the advancement of scientific medicine and race betterment.

The Battle Creek Sanitarium is wholly independent of any other enterprise. It has no branches and no connection with any of the so-called Battle Creek "treatment rooms" in various parts of the country.

No radical methods are employed. The organized therapeutic method which has become known throughout the world is the result of a systematic and comprehensive effort to bring together in one place, under unified control, all the resources afforded by modern medical science whereby a sick man may be aided to the recovery of his health. Many of the scientific ideas, methods and appliances pioneered and developed by the Sanitarium are accepted and used by the medical profession throughout the world.

No expense has been spared to make this effort to construct a complete and comprehensive system as exhaustive as possible. The fact that none of the earnings of the institution have been distributed, has placed at the disposal of the management funds sufficient to provide every appliance, method, apparatus, or other measure which has been proven to be of essential value.

The Battle Creek Sanitarium is today a many million dollar institution with accommodations for 1000 patients and guests. The atmosphere and mode of life at Battle Creek are in no phase those of a hospital. While there are bed patients who are recovering from operations and other acute conditions, most of the patients are up and about—going to the dining room for their meals, enjoying the baths, pools, gymnasiums, etc.—all part of a most enjoyable health program.

With 75 years of experience to guide it, The Battle Creek Sanitarium in 1941 is growing and planning ahead in a program more complete and farsighted than ever before in its history.

In 1941

LEARN TO RELAX

MATHILDE C. MESSNER
Director of Women's Medical Gymnasium

TENSION tends to expend nerve force, retard circulation and other bodily functions, cause emotional instability, decrease power of coordination, leave the individual unsuited for emergency, decrease strength and endurance, cause fatigue and exhaustion; while *relaxation* tends to build up and conserve nerve force, facilitate and improve circulation and other functions, stabilize emotions, improve coordination, build strength, endurance and power of the individual.

No one will dispute the value and need of learning how to relax. This is not only important in acquiring physical fitness, but it is imperative to combat the great strain of daily activities. The medical profession recognizes relaxation as a therapeutic measure.

Permit Relaxation

Relaxation or rest is a natural condition following activity, patterned from the rhythm of life as night follows day. A normal child has no difficulty in relaxing, but the average adult, due to fatigue often brought about by infection, unbalanced physical activity, psychological and functional disturbances, finds himself "keyed up"—"a bundle of nerves" and unable to relax.

The most disturbing factor of not relaxing is insomnia, in spite of the fact that sleep following the day's activity is a natural order. Due to various reasons—fear, anxiety, digestive and circulatory disturbances, and structural imbalance—the habit of tension is acquired. Frequently this restlessness prevails even though the disturbing conditions are eliminated. The individual does not permit relaxation.

Learn to "Let Go"

The individual must learn to differentiate between tension and relaxation. Clenching the fists, biting the jaws, fidgeting, etc., means not only outward tension but inward as well. These and any other habits manifesting tension should be eliminated.

Cultivate the ability of conscious relaxation to conserve strength. This is imperative as an aid to the relief of high blood pressure, gastric and duodenal ulcers, spastic colon, and nerve disorders.

When learning to relax, the most favorable conditions to induce relaxation should be considered—comfort, warmth, place free from disturbing noises. Habitual good posture maintaining structural balance releases tension. This should be observed in reclining as well as standing or sitting.

By practicing the following once or twice daily and at bedtime, one may achieve relaxation:

(a) Recline upon back, eyes gently closed, with pillow under knees. *Head* elevated slightly with small pillow under neck. If for comfort, the head requires greater elevation, always keep an alignment of body by placing the pillow lengthwise under trunk. *Arms* at sides, elbows slightly bent, hands and fingers relaxed. *Feet* comfortably apart. The entire body must be in anatomical balance.

Section Women's Medical Gymnasium

(b) Bend ankles, slowly push with the heels. Hold position until you consciously feel the work of muscles used. Then consciously "let go." Take time to permit relaxation.

(c) Follow stretching with one or two deep breaths. Inhale—"smell" air into lungs. Exhale by blowing through the mouth.

(d) Stretch arms horizontally sideward with palms down. Hold stretch and then completely "let go."

(e) Alternate again with deep breath.

(f) With knees held slightly apart, grasp with hands, pull knees toward abdomen. (This gives a gentle stretch in the lower back, often a disturbing area.) Return feet to bed and slowly slide forward. Push with heels. Release effort—"let go."

Position in Bed

Structural balance facilitates relaxation and should always be observed to insure relaxation and complete rest. Stiff necks and sore shoulders can often be attributed to bad position in bed.

When reclining on the side, keep head in alignment with body. Pillow should be under neck and not under the shoulder as the pressure retards the circulation often causing numbness to fingers and hand. This extreme flexion of arm too frequently is the cause of individuals having restless sleep. Place the upper arm upon the hip with elbow slightly bent. The knees and hips are bent. A pillow placed under the upper knee will keep the lower back in balance. This is particularly helpful for sciatica and sacroiliac strains. Gentle heat applied to lower back may be used effectively for discomfort and pain in this area.

Prone position (face down) with small pillow placed crosswise under the abdomen and one lengthwise under chest and neck. If head is turned to the right, place the right arm in a comfortable position with elbow slightly bent. Extend the left arm at the side with palm up. The prone position is helpful when lower back is troublesome. If there is a limitation of motion in neck and shoulders, this position should not be used.

Helpful Suggestions

Learn to relax in presence of noise and other disturbing factors.

To relax well means to sleep well.

A too busy day often means a sleepless night.

Evening meal should be one easily digested.

Avoid too stimulating activities, physically and mentally, before retiring.

Learn to recognize tense muscles.

One cannot relax well with cold feet.

Correct posture helps to release tension.

Avoid reading in bed with the position of head out of balance, straining not only eyes but also neck.

Relaxation decreases fatigue and adds strength, endurance and power.

DAMAGE TO THE HEART—*Continued*

(Continued from page 1)

heart reserve regardless of whether it may be infection in the muscle, increased back pressure of the arterial blood, or malnutrition of the heart muscle. Deformed valves scarred by rheumatic fever, syphilis, and other more rare disease cause first a muscular thickening of the heart chamber which is attempting to force blood through them, or the valve failure results in a back flow during the resting stage thus preventing complete relaxation. Later, the thickened and fatigued muscle thins out and the heart becomes larger by stretching, reducing its normal reserve strength. Maintained high arterial blood pressure has a similar effect in requiring greater force for output of blood. In each of these instances the heart may be able to carry-on under moderate body activity but cannot meet the demands of excesses.

Obesity adds to the load which the body and heart must carry as well as predisposing to blood pressure elevation. This is one of the most common bodily abuses of the heart and circulation. Coronary artery disease, whether it be simple narrowing from arteriosclerosis or a sudden complete block from a blood clot, and anemia both cause varying degrees of reduced nutrition to the heart muscle and resultant failure. Improper food low in essential elements such as vitamins and blood building materials indirectly affect the heart through blood deficiency. The nervous control of the heart rhythm and rate, as well as the blood carrying capacity of the coronary arteries may be seriously disturbed by excessive nervous strain or emotion, often causing sudden death.

Prevention of Heart Damage

There are a number of ways that the heart can be protected against injury or disease. Many of the preventable contagious diseases may be avoided by ordinary body hygiene, the most serious of which is syphilis. Early treatment of the systemic infection usually prevents involvement of the heart since it is generally not infected or at least damaged until late in the disease. Rheumatic fever, which damages the heart valves in the majority of cases, may often be avoided by removal or treatment of such infectious foci as diseased tonsils, sinuses, and chronic sore throats. After the disease has been contracted permanent damage and subsequent failure of the heart muscle can be greatly reduced by prolonged convalescence. Very frequently no signs or symptoms of heart involvement are noted during the acute stage of rheumatic fever and the individual may be allowed full activity too soon. Consequently the weakened heart muscle, either at once or years later, gives way and heart failure develops. After care of rheumatic fever is usually best affected in an institution, preferably a sanitarium where closely supervised medical care and occupational therapy is available. Full hospitalization is not necessary although long bedrest may be needed.

Main Dining Room

Obesity and nutritional deficiencies are abuses to the heart and blood vessels which may be prevented. Weight reduction is an important factor in lowering blood pressure as well as preventing its elevation. Under-weight, which usually includes deficiency in calories, vitamins, and blood building elements, also should be corrected to keep the heart in its best functional condition. A scientifically balanced diet is needed to assure adequate amounts of these elements.

Maintenance of very nearly correct weight can be accomplished by attention to diet and routine exercise. Wherein the diet cannot be followed strictly at home and it is inconvenient to indulge in routine reducing exercises, a stay of a few weeks in a sanitarium usually brings gratifying results. Concentrated exercise in the gymnasium, graded to fit the individual, aids in the removal of excess fat, tones up the general body muscles and improves the muscular efficiency of the heart.

Continued nervous tension and emotional instability are frequently the cause of serious heart trouble. High blood pressure of the "essential" type is most commonly found in people who live at too rapid a pace and fail to take sufficient rest and relaxation. Coronary artery disease, known as angina pectoris, is also precipitated by nervous strain or emotional upsets. These "abuses" can be greatly relieved by regular relaxation periods each day and frequent vacations where a complete change of environment and avoidance of irritating elements can be obtained. A stay at a sanitarium is usually superior to a resort, particularly if relaxing bath treatment is available. In such an atmosphere a fall of twenty or thirty degrees in blood pressure has been observed.

After Care of Heart "Failure"

Besides convalescence from rheumatic heart disease, recovery from the more acute "failures" of heart muscle caused by advanced valvular disease, coronary artery disease, and debilitating diseases requires chiefly REST. If satisfactory diet and a few simple medicines are given the patient he needs no other special attention than absolute to partial bed rest. After the acute stage of failure has passed, graduated activity can be allowed under the guidance of attendants and doctors, depending upon the amount of heart reserve left. Complete dietary, medical, and recreational facilities found in a sanitarium are extremely valuable for this stage. The patient can be "built" back to health and a new plan of living evolved for him by which he may live within his heart reserve in future years. Complete bed rest confined in the relatively small quarters of the average home, with the many unavoidable disturbing factors, such as the well-meant visits of consoling friends, et cetera, is generally very discouraging. A sanitarium eliminates most of these and offers the opportunity to create a living atmosphere most suitable and pleasant to the patient.

"Packaged" Health

Extended to March 1, 1942

We are pleased to announce that "PACKAGED" HEALTH has met with such success that the expiration date has been extended to March 1, 1942.

"PACKAGED" HEALTH is available in one or two week "packages" — **ONE WEEK $100.00 or TWO WEEKS $160.00** — these rates include: Room with private bath, meals in main dining room, dietitian's services, entrance examination including medical history, physical examination, routine laboratory work, fluoroscopic examination of heart and chest, and dental survey; services of Sanitarium physician, daily bath treatment (6 days per week), daily sunlight (6 days per week), and daily massage (6 days per week) as prescribed; swimming, supervised exercises and many other health and recreational advantages—all this for $100.00, or this program may be continued for another full week for only $60.00 additional.

This "PACKAGED" HEALTH is available only to those remaining one full week or two or more consecutive weeks.

Write for "PACKAGED" HEALTH folder giving full details. No obligation.

Address

BATTLE CREEK SANITARIUM

Battle Creek - - - Michigan

DISEASE OF THE PROSTATE

J. W. HUBLY, M. D.

MEN may congratulate themselves that they escape the many ailments peculiar to the other sex, however, they alone are subject to a common, distressing and often dangerous class of maladies—those of the prostate gland. These are particularly to be feared because they may progress for a long period before they give any symptom to warn the victim. They usually develop after fifty. It is estimated that thirty-five per cent of men reaching sixty have an enlarged prostate. And sixty per cent of men past middle age at some time or other have some type of trouble.

A former generation was inclined to regard such disease as a more or less inevitable accompaniment of old age, like gray hair, to be endured with as much resignation as possible. This view has now been discarded in favor of an early and aggressive attack by proper medical procedure.

This gland surrounds the neck of the bladder and if enlarged compresses the outlet of the bladder and obstructs the free passage of urine. The prostate is honeycombed with ducts. In advanced years these may not completely discharge their contents and consequently become distended. Then the strangling effect on the canal leading from the bladder begins. It might be said that this development is fortunate, since it is commonly the first sign to the patient that anything is wrong. Urination becomes a little more frequent, with mild burning and some dribbling. Most noticeable is the need to empty the bladder at night. This may have to be done at intervals which gradually grow shorter. By this time it is likely that medical attention has been secured. If neglect continues, the flow of urine will be checked until acute retention sets in. This is so painful that consultation with a physician is necessary.

A swollen prostate is an invitation to harmful germs, which may enter the ducts through the canal leading from the bladder or be borne there by the blood stream. Thus a focus of infection may be set up, just as in the tonsils or teeth. Then there may be remote symptoms, such as arthritis, neuritis, sciatica, backache or eye trouble, which may have their cause in the prostate.

A more direct cause of trouble may be the retention of urine in the bladder. As the emptying is not complete, there accumulates a stagnant pool which favors the development of infection. It also brings back pressure on the kidneys, interfering with their functions and lowering their barriers to infection.

One must consider the possibility that enlargement or tumor of the prostate may become malignant. From ten to twenty per cent of them actually develop into cancers. This alone should be an effective argument against neglect of prostatic troubles.

Fortunately, medical science has developed various effective measures for curing inflammation or enlargement of the prostate. Success is conditioned largely on early treatment, hence, it is unwise to wait until frequent urination at night or conditions elsewhere warn that medical care is needed. A regular health examination is the best safeguard, since prostatic disease is easily recognized by the expert.

If treatment is necessary, it can be aided by general attention to the health —avoidance of drafts and wet feet; moderation in work, eating, exercise, play and amusement; a laxative diet, since constipation is particularly to be shunned. The inclination to empty the bladder should be obeyed promptly, whatever the social or business inconveniences. It is a peculiar fact that enlargement of the prostate is seen quite frequently in housebroken dogs, although never in those which run at liberty.

Finally, some cases have been allowed to go so far that surgery is the only recourse. Formerly the operation was a heavy one, with a considerable percentage of deaths. This is no longer the fact, thanks to a marvelous invention of medical science. By means of what is known as transurethral resection, the obstruction can be removed with an electric current. There is no open wound, and the subsequent stay in the hospital is greatly shortened. Furthermore, the operation can be safely performed on persons who would be considered bad surgical risks under the old procedure.

The Sanitarium News Bulletin

Issued Weekly
Leta B. Browning, Editor

BATTLE CREEK, MICHIGAN

Vol. 3, No. 35
Sept. 5, 1930

Health is the greatest of all possessions, and 'tis a maxim with me that a hale cobbler is better than a sick king.—*Bickerstaff.*

Arthritis—An Increasing Menace

By John Harvey Kellogg, M.D., LL.D., F.A.C.S.

Arthritis is a chronic disease which begins with the small joints, usually with the hands. The joints gradually enlarge, the disease extending symmetrically from one joint to another until all the joints in the body may be involved. The disease appears in two forms, hypertrophic and atrophic. In the hypertrophic form excrescences form about the ends of the bones. In the atrophic form the cartilages are absorbed and there is sometimes infection in the joint and very considerable enlargement of the joint. The soft tissues about the joint are congested and inflamed and are the seat of pain. The disease sometimes affects a single large joint, as the hip joint. This is most frequently seen in old men. It may also affect other single joints, as a knee, an elbow or a shoulder. The vertebrae alone may be affected, when the disease is known as spondylitis deformans. A bulbous enlargement of the last joints of the fingers which frequently occurs in persons at middle life, is known as Heberden's nodes. Women are affected with this disease about five times as frequently as men.

The cause of this disease has been much discussed. The discoveries of Rosenow seem to point to infection as being the real cause of the changes in the joints. It is believed that the infection originates in other local or focal infections, among which may be named infections of the teeth, diseased tonsils, infections of the sinuses connected with the nose, disease of the gallbladder, chronic appendicitis, colitis, etc.

In the treatment of arthritis any seat of focal infection must be removed. The teeth should be examined by a dental expert. The examination should include an X-ray of the teeth. The tonsils should be carefully inspected and a study should be made of all other points which may possibly be the seat of focal infection. Any diseased condition found must be removed. For relief of the pain in the joints and to arrest the disease process very hot applications are most efficient. The heat may be applied by means of fomentations, hot sand bags, hot-air apparatus, electrical thermophores, the electric-light bath and by means of one of the hot-water douches and the steam douche. One of the most effective of all treatments is the application of diathermy. The hot applications should be made daily and should be of thirty to sixty minutes' duration. In the intervals between hot applications the heating compress should be applied. When there is much pain and swelling, which is increased by movement, splints or plaster of Paris bandages should be applied so as to keep the parts immovable until the pain ceases. The bandage may be carefully removed daily for the application of heat. The joints should be carefully moved each time the bandage is changed so as to prevent immobility. In addition to local applications, general applications should be made to improve the patient's general nutrition. The most important measures of this sort are the sweating bath two or three times a week, the electric-light bath, sun bath, air baths, frictions, massage, Swedish movements and electrical gymnastics, the most efficient means of exercising the muscles and thus counteracting the bad effects of enforced idleness. The diet should be strictly antitoxic. Meats of all kinds must be discarded. Tea, coffee and tobacco must be strictly interdicted. The

(Continued on Page Eight)

Dr. Kellogg's Question Box Lecture

What Causes Diabetes?

Question: What is diabetes?

Answer: Diabetes is a disease in which the metabolism of all foodstuffs is interfered with, and more especially the carbohydrates. This interference may be such that the body is unable to use sugar properly or to store sugar regularly. It is usually manifested by sugar in the urine, although many cases exist in which just the blood sugar is increased. But there are certain forms of the disease in which the blood sugar is not increased but urinary sugar shows.

Question: What is the cause of diabetes?

Answer: Probably heredity is the biggest cause of diabetes, it being inherited back two or three generations. One who inherits a weakness along this line may become a diabetic by overeating, becoming too fat, by infections of various kinds, such as sinus, follicular tonsillitis, badly infected teeth, gallbladder disease or other infections which may be exciting causes in bringing out the disease. The pancreas is usually the organ mostly affected, but changes in the pituitary, thyroid, liver and adrenals may produce sugar in the urine.

Question: How do the pancreas and other organs become diseased in this way?

Answer: There is much reason for believing that the pancreas, liver and other glands which may be involved in diabetes are damaged through abnormal strains to which they are subjected and which may occur in several ways, particularly the following:

1. As the result of intestinal toxemia the body may be required to deal with a great excess of poisons which are absorbed by the intestine. The chief source of these poisons is the putrefaction of undigested food residues, particularly the residues of meat, which are usually swarming with putrefactive bacteria besides being especially easily putrescible. But putrefactive changes may occur when meats are not eaten if the food residues and body wastes are long retained in the colon; that is, if constipation exists. Most diabetics are constipated and their stools are highly putrid. The liver and the glands of internal secretion have for one of their functions the destruction of these poisons. These organs are damaged by overwork. It is entirely probable, also, that the pancreas may be damaged by the presence of an excessive amount of these poisons in the blood stream.

2. The second source of strain is the excessive use of cane sugar. The great increase in diabetes in this country has followed closely the increase in the consumption of cane sugar.

3. There is also reason for believing that the pancreas as well as the liver becomes diseased and structurally damaged through infection extending from the intestine and perhaps from other sources.

Question: Is diabetes a curable disease?

Answer: Now that insulin and a well-balanced diet can be had, it would seem unnecessary for anyone not to live a normal life nearly as long and nearly as well as if he did not have the disease for diabetics are now living who previous to these two discoveries, would have died.

Question: What is the life expectancy, or average duration of life, of a diabetic?

Answer: Under old methods of treatment the duration of life of the diabetic patient after the discovery of sugar in the urine was short, usually not more than two or three years, although there were some exceptions. Under the new system of treatment, including the use of insulin, the great hope is offered the diabetic that his life may be prolonged to the limit of average life expectancy for a person of his age; but this is only when he thoroughly cooperates in removing all causes found in his disease and by following a well-balanced diet, also by the careful application of this well-balanced diet to his individual needs and requirements.

Question: What are the essential features of the treatment?

Answer: The new method, based upon comparatively recent scientific discoveries, includes the following essential features:

1. Exact examinations of the blood and urine, not only for sugar but also for the poisonous products associated with acidosis, and a careful study of everything pertaining to the patient's nutrition.
2. A well-balanced, weighed diet.
3. Enough protein to take care of the

(Continued on Page Four)

PROGRAM FOR THE WEEK

(September 5 to 11, Inclusive)

FRIDAY MORNING, 9.30. Diabetic Cooking School.
FRIDAY AFTERNOON, 2.00. Concert—Sanitarium Ensemble.
FRIDAY AFTERNOON, 2.00. Lecture—Mrs. Gertrude Brown.
FRIDAY AFTERNOON, 3.00. General Cooking School.
FRIDAY EVENING, 7.30. Song Service on the Mezzanine.
SATURDAY MORNING, 9.30. Nature Study Class. Meet in Men's Lounge off Main Lobby.
SATURDAY AFTERNOON, 2.00-4.00. Bus Rides. Please register at Main Desk for trips to Bird Sanctuary.
SATURDAY EVENING, 8.00. Humorous Entertainment—Sanitarium Gymnasium—Clarence Burgderfer, Famous Lyceum and Chautauqua Artist. Admission Fifty Cents.
SUNDAY EVENING, 8.00. Lecture—(See Bulletin Board).
MONDAY MORNING, 9.30. Diabetic Cooking School.
MONDAY AFTERNOON, 2.00. Concert—Sanitarium Ensemble.
MONDAY AFTERNOON, 2.00. Lecture—Mrs. Gertrude Brown.
MONDAY AFTERNOON, 3.00. General Cooking School.
MONDAY EVENING, 8.00. Question Box Lecture—Dr. John Harvey Kellogg—North Lobby.
TUESDAY MORNING, 9.30. Diabetic Cooking School.
TUESDAY AFTERNOON, 3.00. General Cooking School.
TUESDAY AFTERNOON, 5.00. Lecture—Dr. Estella G. Norman.
TUESDAY EVENING, 8.00. Concert and Reception on Mezzanine.
WEDNESDAY MORNING, 9.30. Diabetic Cooking School.
WEDNESDAY AFTERNOON, 2.00. Concert—Sanitarium Ensemble.
WEDNESDAY AFTERNOON, 2.00. Lecture—Mrs. Gertrude Brown.
WEDNESDAY AFTERNOON, 3.00. General Cooking School.
WEDNESDAY EVENING, 8.00. Lecture—Dr. W. H. Riley.
THURSDAY MORNING, 9.30. Diabetic Cooking Class.
THURSDAY AFTERNOON, 2.00. Lecture on Foods—Margaret Allen Hall.
THURSDAY EVENING, 8.00. Lecture—Dr. E. L. Eggleston.

(See Bulletin Board for Further Information)

constipation, (5) sensory disturbance such as numbness and pricking in the hands and feet, (6) nervousness. Any one or more of these symptoms may appear early in the disease. In our experience all cases of pernicious anemia have an absence of hydrochloric acid in the stomach and we are of the opinion that this is a congenital condition and doubtless in most cases inherited. It is important in every case of anemia to have a gastric analysis. Not all cases that have an absence of hydrochloric acid develop pernicious anemia but all such cases should be most carefully studied and put on a proper diet and given hydrochloric acid. It is possible that the disease proper could be prevented if all people with an absence of hydrochloric acid would take this precaution. The fact that in these cases the hydrochloric acid is absent or markedly diminished from birth indicates the necessity of a stomach test.

In the normal individual a sufficient number of red blood cells are being produced and turned into the blood stream, while in pernicious anemia the red cells are not fully developed and appear in the blood stream in an immature state. This condition is probably brought about by a lack of some essential element which has to do with the promotion of a normal red cell production, the absence of which leads to the gradual development of pernicious anemia.

A preparation made from the lining of the stomach of the pig and sheep when given to a patient suffering from pernicious anemia causes the anemia to disappear in a comparatively short time.

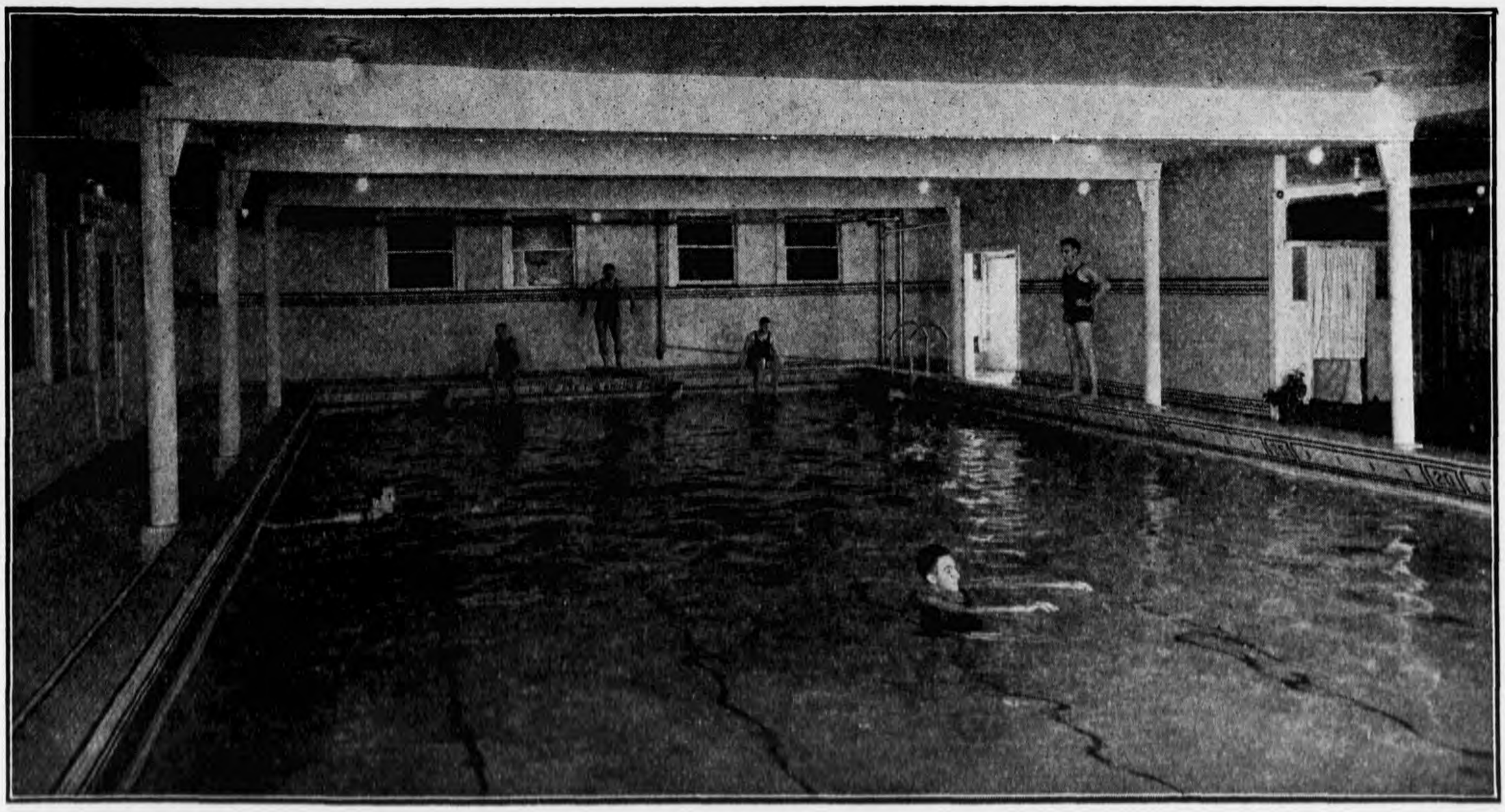
LIVER DIET

About three years ago the feeding of liver was tried in pernicious anemia with gratifying results. The anemia gradually disappeared and a remarkable general improvement occurred in a few weeks' time. Liver was heralded by every newspaper in the world as a cure for anemia. People in general did not have a clear picture of anemia and therefore thousands assumed they were anemic. They felt that everything from falling of the hair to ingrown toe nails was due to anemia and could be corrected by eating liver. It was soon found, however, that the use of liver was only beneficial in pernicious anemia and of no benefit in secondary anemia. As a result, many people used liver greatly to their detriment and cases of anemia due to Bright's disease and other chronic disorders were made worse. The promiscuous use of liver also led to false hopes and anemic individuals neglected to search for the actual cause of their trouble and depended on liver for a cure. Liver is not a cure of pernicious anemia, as insulin of which you have heard so much in recent years is not a cure for diabetes. The liver apparently stores this vital substance so necessary to cell formation and when eaten this substance is taken up by the blood stream and carried to the bone marrow where it is utilized and aids in the construction of the cell. Its action is only temporary and therefore a new supply must be had each day. To obtain a sufficient amount of this substance from one-fourth to one-half or more pounds of liver must be eaten daily. The intake of such a large quantity of liver daily carries into the system an excessive amount of protein and doubtless other toxic substances and the continued use therefore may easily lead to complications such as kidney trouble, as has been shown by Newburgh of Ann Arbor. An extract containing the essential ingredients of liver and having none of the possible deleterious effects is to be had now and should be used if possible in every case where indicated.

Liver was formerly portrayed as the cure-all and little emphasis was given to the other vital factors such as food and proper hygiene. We now know that the use of an abundance of fruit and vegetables and other vitamin-containing foods is essential. We have shown that the amount of liver extract used daily can be cut in half when used in conjunction with a properly balanced vitamin diet. It has also been shown that the use of liver does not correct the degenerative changes which so frequently take place in the spinal cord in cases of pernicious anemia and that the use of vitamin-containing foods has a beneficial effect. In pernicious anemia the intestinal flora is predominantly putrefactive in type resulting in the formation of poisonous substances which when absorbed are very harmful and greatly lessen the patient's chance for recovery. In order to overcome this difficulty, it is necessary to change the intestinal flora from the putrefactive type to the aciduric—this is accomplished by a properly regulated dietary.

The treatment of anemia in general is a blood-building, high-vitamin diet; the establishing of a good intestinal flora; the elimination of any possible source of toxemia, infected teeth, diseased tonsils, sinuses, etc.; an abundance of rest, sunshine and fresh air. We have had in the past three years approximately two hundred cases of pernicious anemia and the above program has resulted in marked

(Continued on Page Eight)



One of the Two Indoor Swimming Pools in the Main Building

The Art of Falling Asleep

(At the Proper Time)

Every now and then there appears in the Question Box a query of this nature —"Please tell me how to sleep. I am awfully nervous and cannot go to sleep, and the longer I try the more wide awake I become. How many hours should I sleep?"

Doctor Kellogg, opening his Question Box one evening, found the above written on the back of an envelope and answered it thusly:

"You should sleep at least eight hours, or as many hours as you can if you are an invalid, because you are getting well twice as fast while you are asleep as when you are awake. Children grow when they are asleep. Plants grow twice as fast at night as in the day time. An invalid should sleep just as many hours as he can even if it is ten or twelve hours.

"And now, how to go to sleep. That is the question. In the first place one should earn the right to sleep. The Good Book says, 'The sleep of the laboring man is sweet.' So if you want to sleep soundly you must work; in other words you must get tired. One has not the right to sleep unless he is tired. Simply going without sleep does not always prepare one for sleep. It is especially important that one should make the muscles work. One should work hard enough every day to get into good perspiration. This muscular fatigue prepares the way for normal healthy sleep.

"Another thing, one should go to bed with a clear conscience. Maybe you do not sleep because you have something on your mind that you cannot get off. The first thing to make sure of when you go to sleep is to have nothing to worry about for worry will keep one awake in spite of anything else. Sometimes you allow your mind to become so occupied with business matters that you cannot throw them off. You cannot stop thinking. The little fingers of the nerve cells in the brain seem to get stuck together so fast they will not let go. The consequence is the will and the consciousness seem to maintain their activity. You cannot quiet your nerves and go to sleep. In other words you cannot stop thinking.

"It is a very curious nervous phenomenon that can be applied in such a way as to induce sleep. The hypnotist puts a person to sleep by making him look at some bright object. I remember some thirty or forty years ago, when abroad, I went to Paris for the purpose of studying hypnotism with Professor Charcot who was a famous nerve specialist. I recall one way he put his patients to sleep. He had a bright object attached to a little support and strapped it upon the patient's head. It was placed so the patient had to roll his eyes up to look at it. The patient was placed in a chair and made to look at this bright object. After looking at this object for three minutes he would invariably fall asleep. The reason was that in looking at this object certain centers in the brain would become tired and when they would become fatigued they would cease activity. If you produce fatigue in one set of cells it seems to become contagious so it travels along to other sets of cells. That is the reason why one can go to sleep on a railroad train when the train is in motion and is likely to wake up when it stops. The monotony of the sound will put a person to sleep.

"A very curious thing happened at Niagara Falls many years ago. The falls stopped in the middle of the night. A great ice gorge formed above the falls that held the water back so that the roar of the cataract ceased and everybody in the neighborhood awoke in the middle of the night. The silence was so loud it woke everyone up and the people of that vicinity were very much surprised. The roar had stopped. There was great consternation. What had happened? They discovered that no water was coming over the falls. It seems very curious that the stopping of the cataract should wake the people up. When the roar began again they all went to sleep as usual.

"I have known a number of cases in which a doctor found it necessary to bring a clock into the room and set it going, as the patient had been accustomed to sleeping with a clock in the room.

"I will tell you how to fix up a very simple arrangement that you can use anywhere at any time. When you go to bed take a little card of any sort and a little stub of a pencil. After putting out your light, saying your prayers and getting all ready to go to sleep, close your eyes and begin taking deep breaths. Do not forget to close your eyes. If you do not take the trouble to close your eyes, you do not deserve to sleep.

"Begin by taking a very deep breath, as deep as you possibly can. Make a mark as you breathe out, and then take another deep breath and make another mark. Do not count the marks until morning. Leave that until morning. If you try the old recipe for going to sleep, 'One sheep jumped over the wall, two sheep jumped over the wall, three sheep jumped over the wall,' the first thing you know the whole air will be full of sheep jumping over the wall and you will not get to sleep. But just take a deep breath and make a mark. That uses few brain cells, but it uses enough to keep the mind occupied. That occupies the mind and fills the field of thought, so to speak, and it is such a simple mental operation that it does not get you all excited, and in the morning you will be surprised to find hardly a dozen marks on the paper. By this method you fall asleep before you know it.

"Of course, one's physical condition must be right. If one's colon is filled with disturbing food remnants, that will keep him awake. You say, 'I always sleep better if I have eaten.' Yes, you go to sleep, but you wake up a little later, perhaps at two or three o'clock in the morning. Some people complain of this difficulty more than of any other, and the reason is that the taking of a meal is like putting coal into a furnace. It takes about three to six hours for this food to digest and at the end of that time, the new food will be pouring into the arteries and as this freshly received food comes around to the brain, it is exactly like putting a lot of fuel into a furnace. The fire is burning, steam gets up and the machine wants to get into motion. The reason why you cannot sleep in the morning is because you are not in condition to sleep. Your whole machinery is stimulated to a high degree and ready for work, though you really want sleep and perhaps need sleep. So a light supper or no supper at all is a very good remedy for sleeplessness. Eat fruit for supper."

Arthritis—An Increasing Menace

(Continued from Page One)

use of aspirin and other drugs for the relief of pain should be avoided. By a sufficiently painstaking effort the patient may be made reasonably comfortable so that he can secure the necessary amount of sleep. It must be remembered that the liver, kidneys and other vital organs of persons suffering from this disease are badly crippled, and hence they should be burdened as little as possible with the work of eliminating drugs, all of which are more or less toxic in character.

Anemia—Secondary and Pernicious

(Continued from Page Seven)

improvement and a practical restoration of normal health. Untoward results are due to neglect of diet, inter-current infections, such as colds and fatigue. Though secondary anemia can be corrected presumably by removal of the cause and proper treatment, pernicious anemia cases must always be patients, but the reward of the adoption of a proper program under careful observation and supervision means in most cases many more years of comfort and happiness.

The Sanitarium News Bulletin

Issued Weekly
Leta B. Browning, Editor

BATTLE CREEK, MICHIGAN

Vol. 3, No. 19
May 9, 1930

"However meager be my worldly wealth,
Let me give something that shall aid my kind—
A word of courage, or a thought of health,
Dropped as I pass for troubled hearts to find."

ARTHRITIS

C. C. Hubly, M.D.

ARTHRITIS is an inflammatory condition of the bony joints of the body, characterized by swelling, heat and pain on movement of the joint, as a rule, which may be of varied origin. Some cases are due to nervous changes that go on, others are due to changes in the metabolism. In the metabolic cases, one may have an increase in the blood sugar and sugar may appear in the urine at various times. In the cases where there is metabolic disturbance, the glucose tolerance test is a valuable aid in determining the carbohydrate metabolism. If the carbohydrate tolerance is lowered, then the elimination of all sugar in the diet and modification of the amount of starches and other sugars should be made.

There are other forms, such as those coming on at the change of life, but probably the greater majority of cases of arthritis are due to foci of infection, which may be located in various parts of the body. The nose and throat are very common sources. Any infections, even mild infections, of the sinuses may be a contributory cause. Where there is any doubt, the sinuses should be thoroughly investigated by X-ray and then complemented with an X-ray where Lipiodol has been injected into the sinuses, in order to get at the amount of pathology or diseased condition in the sinuses. These areas, if found infected, of course must be removed, whether it be by treatment or surgical procedure. Where the patient has adenoids or diseased tonsils, these should be removed.

Blossom Week in Michigan
May 5th to 11th

There may be dead teeth showing abscesses or dead teeth that do not show abscesses but continue to feed bacterial poisons to the general system. Many times we find a tooth that has been seemingly well taken care of by the dentist, reported by the X-ray as not having any rarefaction that the X-ray can detect. This is usually interpreted as meaning that there is no infection around the tooth. However, in the greater majority of these teeth, if they are taken out and cultured, infection will be found, and it is best not to leave such teeth in, in a case of arthritis. They should be removed, however, only when condemned by the physician and the dentist.

Other sources of infection also must be sought. Pyorrhea should be taken care of by having prophylactic treatment in the mouth. It is well to make a study of the gallbladder to find out if there is any infection there, for a number of cases have been relieved by removal of a badly infected gallbladder when this was the sole cause of the difficulty. The function of the liver should be tested out, as the liver keeps many poisons and toxins from entering the body. Also the chest should be thoroughly investigated. The appendix, when it is chronically infected, may also be a foci of infection.

Where the colon is infected and causes arthritis, if colon treatments do not remedy the condition, the irrigation of the colon, by bringing the appendix to the surface of the body and making a fistula, produces in such cases very good results. Where there is a diver-

ticulosis of the colon, accompanied with diverticulitis, the difficulty is much harder to reach and requires long-continued colon hygiene.

There are also areas in the genito-urinary system that can have focal infections and these should be diligently sought for.

One has to be very careful in finding a foci of infection that this is not considered the chief foci and thus neglect making a complete examination, for if there are other foci of infection that exist simultaneously, the removal of just one of them is not sufficient. All foci of infection must be removed to get the best of results.

After the cause has been removed as thoroughly as possible, then a basic diet, if it is not contra-indicated by conditions of the stomach, is found, as a rule, very useful. The sunshine baths, diathermy and hydrotherapy are also very beneficial, when scientifically applied and supervised by a physician well qualified and experienced in physiotherapy.

Announcements

MAIN GYMNASIUM—Near Palm Garden. —7 A.M., Chest Gymnastics; 8:30 to 9 A.M., Special Class for Women; 9 to 9:30, Drill and March for Men and Women; 9:30 to 10, Games, Baseball, etc., for Men; 3 to 4, Games, Volley Ball, etc.; 7 P.M., Grand March with Music for Men and Women.

MAIN DINING ROOM — Off Mezzanine. Breakfast, 7:40 to 8:40 A.M.; Dinner, 12:45 to 2 P.M.; Supper, 6 to 6:45 P.M.

OCCUPATIONAL THERAPY DEPARTMENT—Take central elevator in old lobby to sixth floor. Department is in room formerly used as banquet hall. Open daily. Instruction in the making of hook rugs, loom work, bead work, lamp shades, basketry, art needlework, dinner favors and other phases of occupational work. Class hours every day except Saturday, 10 to 12 and 2 to 4. Private lessons for bed patients by appointment.

SWIMMING POOLS — Open daily, except Saturday. Expert teachers in attendance at all times.

LIBRARY—Mezzanine Floor. Open daily, 8:30 A.M. to 9 P.M.

THE NEWS BULLETIN and other literature describing the Sanitarium will be mailed to your friends free of charge from the literature desks in the Old Lobby, or on the mezzanine.

PUBLIC STENOGRAPHER—Old Lobby near Chaplain's office. Hours—8 to 12 and 1 to 5 daily except Sunday.

COOKING SCHOOL—Basement Floor. 3 to 6 P.M. on Monday, Tuesday, Wednesday and Friday.

TOUR THROUGH SANITARIUM—Daily except Saturday. Leave with guide from Old Lobby, 3 P.M.

PROGRAM FOR THE WEEK

(May 9th to 15th, Inclusive)

FRIDAY MORNING, 9.30. Diabetic Cooking School.

FRIDAY AFTERNOON, 2.00. Concert—Sanitarium Ensemble.

FRIDAY AFTERNOON, 3.00. General Cooking School.

FRIDAY EVENING, 7.30. Song Service.

SATURDAY EVENING, 8.00. Mezzanine Floor—Concert, Sanitarium Ensemble.

SUNDAY EVENING, 7.40. Song Service.

SUNDAY EVENING, 8.00. Lecture by Mrs. Kate Selby Wilder.

MONDAY MORNING, 9.30. Diabetic Cooking School.

MONDAY AFTERNOON, 2.00. Concert—Sanitarium Ensemble.

MONDAY AFTERNOON, 3.00. General Cooking School.

MONDAY EVENING, 8.00. Question Box Lecture.

TUESDAY MORNING, 9.30. Diabetic Cooking School.

TUESDAY AFTERNOON, 3.00. General Cooking School.

TUESDAY EVENING, 8.00. Concert—Sanitarium Ensemble.

WEDNESDAY MORNING, 9.30. Diabetic Cooking School.

WEDNESDAY AFTERNOON, 2.00. Concert—Sanitarium Ensemble.

WEDNESDAY AFTERNOON, 3.00. General Cooking School.

WEDNESDAY EVENING, 8.00. Lecture—LeRoy F. Sparks.

THURSDAY AFTERNOON, 2.00. Lecture—Margaret Allen Hall.

THURSDAY EVENING, 8.00. Lecture—"Colonial Virginia and Brandon-on-the-James," by Mrs. James R. V. Daniel of Richmond, Va.

(See Bulletin Board for further information)

A Group of Sanitarium Dietitians

They tell us what to eat and why. Our expertly trained dietitians have played an important part in making the Sanitarium world-famous.

Lobby Notes

Our Southern Guests Arriving Last Week

ALABAMA

Mrs. A. M. Festerazzi and daughter.

FLORIDA

Ora B. Wofford, John B. Wofford, John Winter and Minerva B. Wheeler.

KENTUCKY

Mr. and Mrs. R. M. Garland, Mr. and Mrs. C. G. Arnett, Mrs. R. L. Condon, Miss Jency Young and Burke H. Keeney.

GEORGIA

Mrs. O. M. Grady.

TEXAS

Mr. and Mrs. Charles Desel and Frances; Mrs. R. R. White and Mary Alice.

WEST VIRGINIA

Mrs. Frank Hurlbutt.

* * *

During the past week we have had several interesting guests arrive from Canada. The list includes Charles Frosst, S. B. Lindsay, Mr. and Mrs. A. J. M. Petri, Mrs. S. Wasley and Miss A. Liefflen of Montreal, Quebec; Mr. and Mrs. I. H. Bowman of Regina, Sask.; Mrs. A. Rogers and son and Mr. Harry Ashdown of Winnipeg, Manitoba.

* * *

Mr. and Mrs. Frank Barnett of Waynesboro, Pa., have returned to the Sanitarium.

* * *

Miss Ada May Ragon of Evansville, Indiana, has returned to the Sanitarium for an indefinite stay. Miss Ragon is a sister of Mrs. Edmund D. Vince and has many friends in Battle Creek who welcome her back.

* * *

Mrs. A. C. Showalter of Cleveland, Ohio, is with us again.

* * *

Mrs. Frank H. Powell, Los Angeles, California, has arrived for a few weeks' rest.

* * *

Mr. and Mrs. A. E. Herrera arrived at the Sanitarium Tuesday. Mr. Herrera is a prominent planter in Port-of-Spain, Trinidad, B. W. I.

* * *

Miss E. F. Upton has just arrived for a check-up. Miss Upton has been engaged in missionary work in Omiya, Japan.

* * *

We have two very interesting recent arrivals at the Sanitarium from Japan—Miss E. F. Upton, who has been engaged in missionary work in Omiya and Dr. Takeyuki Matsuo of Putuoka, who has come to look over the Sanitarium and observe our methods.

We are pleased to number among our guests at the present time, Mr. Charles A. Greathouse of Indianapolis, Indiana.

Mr. Greathouse is President and Treasurer of the Bookwalter-Ball-Greathouse Printing Company, which is one of the largest printing concerns in the middle west. In addition to printing a great number of magazines—*Hardware, Retailer, Journeyman Barber, Teamster* and *The Teacher*, they print and bind yearly four million school books, dictionaries and law books as well as many commercial catalogs.

Mr. Greathouse served longer than any other man as Superintendent of Public Instruction. At the close of his term he was appointed by President Wilson as a member of the Board for the Rehabilitation of Disabled Soldiers and Vocational Education. He served in that capacity until the close of the war at which time he resigned and returned to his home.

Mr. Greathouse is now a member of the Democratic National Committee in Indiana and Secretary of the Democratic Nominating Committee. He was Secretary of the Madison Square Convention and also of the Houston Convention.

Mr. Greathouse is an ardent admirer of the Sanitarium, and states that he is returning home within the next week or ten days greatly improved in health.

* * *

Dr. Catherine B. de Solomjan of Buenos Aires, Argentina, arrived at the Sanitarium Wednesday. She is going through the clinic and at the same time is making observations to carry back with her.

Dr. de Solomjan will remain in the United States for a long rest—a well-deserved one—for she has been practicing medicine for the past thirty years. She graduated in France and for three years practiced medicine in Paris. She then went to Buenos Aires, where she has practiced ever since.

Dr. de Solomjan visited New York, Washington, Philadelphia, Niagara Falls and other places of note before coming to Battle Creek and she states that in no country has she seen so much comfort and luxury as in the States.

Though Dr. Solomjan speaks but little English, she converses easily in Russian and speaks several other languages fluently.

The doctor's husband is a mining engineer in Argentina and her two sons are both practicing medicine in Buenos Aires.

Rebels

An educator says that youthful revolt begins at the age of twelve. That man has never tried to get a lusty three-year-old to eat his ration of spinach.—*St. Catharines Standard.*

Question Box

Question: Does the mind influence the body?

Answer: There is not any doubt about it. The mind influences the body to a wonderful degree.

Question: What causes trembling of the legs and arms during some gymnasium exercises?

Answer: Trembling of the arms and legs is due to tension. When the tension becomes high enough it produces trembling. When a person is extremely nervous his hands and legs tremble. Coffee is one of the common causes of this. Many people drink a cup of coffee and in an hour or two their hands will shake. It is because it raises tension.

Question: Is there any cure for valvular heart disease?

Answer: Yes, the heart cures itself, or at any rate gets well. If a person has a broken valve, of course, the valve is never repaired, but the heart gets larger and stronger so it is able to do its work fairly well. I remember a man who was chaplain of the institution here when he was over 70 years of age. I knew him when he was only 35. When he was 40, he got valvular heart disease and the doctor told him to prepare to die but he was not disposed to do so and was still living, active and vigorous when over 70 years of age.

Question: What causes acute indigestion and what remedy would you suggest to cure same?

Answer: Some indiscretion in eating, eating too much or eating unwholesome food is the cause of acute indigestion. A hot fomentation over the stomach, hot water drinking and, if necessary, emptying of the stomach by vomiting or the use of the stomach tube, are the measures required for relief. Future attacks should be prevented by avoiding the cause.

Question: How much heat does it take to kill vitamins? Does boiling, steam and dry heat have the same effect? Are vitamins alike in all foods?

Answer: Vitamins differ much in their resistance to heat and other destructive influences. Vitamin C is killed by a boiling temperature, especially when exposed to air. Vitamin A, B and D are much more resistant. These endure a boiling temperature for an hour or two without material injury. All vitamins, however, are more or less impaired by long exposure to the air, light and desiccation. Alkalies also destroy vitamins.

Question: Is there any danger of eating too much salt?

Answer: Yes. There is salt enough in the food as Nature produces it. An excess of salt does much harm. A little may be used without injury. Care should be taken to keep the intake of salt at a minimum.

The Banana as a Taste Stimulant

Bananas are as ever-present in our modern markets as they are in the tropical countries, where they are one of the most important articles of food. Nations have been founded because of bananas and nations today live by them. Even the nations far removed from the shade of the tall, broad-leaved banana plant find the fruit an important article of commerce, and people who do not know whether the long golden fruit grows on a vine or a tree are as familiar with its yellow gleaming skin and smooth, sweet richness as they are with meat and potatoes.

Recently people have come to realize that bananas may serve as vegetables as well as fruit and that a banana cooked is often much more delicious and enticing to the appetite than bananas served as fruit. There is no closed season for bananas, though the fruit is at its best in American markets between January and July, and the price is never high.

The fruit is rich in nutrients, and cooked or raw, is a wholesome food and a welcome addition to the diet. This fruit combines unusually well with milk, for its flavor blends smoothly and pleasingly with it. (Reprinted from *National Hotel Review.*)

BANANA FRITTERS

1 egg
½ cup flour
1 cup diced bananas
4 tbsps. butter
½ cup milk
1½ tsps. baking powder
¼ tsp. salt

Beat the egg and add milk. Sift flour, salt and baking powder together and add the milk and egg. Add melted butter and fold in diced bananas. Bake in a shallow pan. Fill the pan about one-half to three-fourths of an inch deep with batter. When ready to remove from the oven, brush the top with melted butter and dredge with powdered sugar. Cut into squares and serve.

BANANA ICE CREAM

1½ cups diced bananas
¾ cup sugar
2 cups cream
1 cup milk
2 tbsps. lemon juice
1 tbsp. vanilla
¼ tsp. salt

Force bananas through a coarse meshed sieve, add lemon juice and one-half cup sugar. Mix milk, cream, the remainder of the sugar, the vanilla and salt. Add bananas and freeze.

BANANA CAKE

½ cup butter
1½ cups sugar
½ cup sour milk
1 cup mashed bananas
2 eggs
1 tsp. soda
2 tsps. baking powder
2 cups flour

Cream butter and add sugar slowly; add well-beaten eggs then alternately, the dry ingredients sifted together and the sour milk. Add the mashed bananas last. Bake in two layer cake pans or in a shallow loaf pan. Ice with whipped cream mixed with banana purée.

Here and There in the Kingdom of Vegetables

THE POTATO

Sir Walter Raleigh discovered the potato on Roanoke Island. In 1586, he sent the first cargo of this valuable vegetable to England. In Europe it met with great opposition and was accused of being the cause of leprosy. However, after it became generally used in Europe, the great epidemics of scurvy which had previously prevailed, disappeared.

THE ONION

There are more than seventy varieties of onions grown in the United States. The characteristic flavor of the onion is due to an oil containing allyl sulphid, which is excreted through the lungs when this vegetable is eaten. Herodotus tells us that nine tons of gold were spent in the purchase of onions for the workmen who built the pyramids.

The onion affords a very excellent form of food iron.

ASPARAGUS

The onion has its relatives, too, one of which is asparagus — valuable for the salts, vitamins and cellulose which it contains. It is a highly toothsome vegetable. Asparagus should be steamed rather than boiled, for after boiling the amount of nutritive material left is of very small value.

THE TOMATO

Our grandfathers will tell us that in their youth the tomato was called the "love apple," and was displayed as a curious and poisonous show plant in flower gardens. In the past seventy years it has become extensively used not only in America but in many other countries. The tomato, potato and watermelon were all discovered by Sir Walter Raleigh on Roanoke Island.

The tomato is rich in iron containing twice as much as does milk and five times as much as egg white. It contains more lime than apples and rice and three times as much as beef, mutton or fish. It is also rich in potash, salts and vitamins.

THE CUCUMBER

The cucumber has been used for more than 2,000 years. In Egypt it is almost a food staple.

Fresh cucumbers, well masticated, are wholesome and valuable as sources of vitamins and salts which help maintain the alkalinity of the blood. It is pickling that spoils the cucumber as far as American tables are concerned.

LETTUCE

Augustus Caesar was very fond of lettuce, so fond of it in fact, he erected a statue to it. In the time of Domitian, the Romans served lettuce with eggs. It is probably one of the most ancient of eating customs.

Lettuce furnishes valuable salts and vitamins and supplies bulk. What a blessing it is to those who count the calories for overweight.

THE CABBAGE

The cabbage was Emperor Pompey's favorite dish. It has been used since the most ancient times. It is valuable for the lime, alkaline salts and vitamins which it contains. These constituents are largely lost in boiling, hence cabbage is more valuable when eaten steamed or raw. Many people who cannot eat cooked cabbage have no trouble at all digesting raw cabbage.

BEANS

Beans were worshiped by the ancient Egyptians and the old Romans but apparently not by the American doughboys.

Pythagoras thought the black spot on the bean to be an emblem of death and warned his followers to avoid eating beans. Beans were among the few vegetables cultivated by the Indians. The bean is the most strongly basic or alkaline of all foods and so may be used advantageously with such "acid" foods as oatmeal and other cereals.

PEAS

The garden pea has been known in Europe from prehistoric times. When mature and dry, the pea contains about twenty-five per cent of its weight in protein. This protein of the pea is superior in quality to that of the bean.

Green peas, delicate and delicious contain a considerable amount of sugar, which as the pea ripens is converted into starch. Both the protein and carbohydrate are much smaller in amount in the green pea than in the ripe pea.

The Endurance Grind

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"Gosh, you drive, don't you? What did you do—take a trip to Florida or California?"

"No, just drove back and forth to the grocery for my wife."

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Life and

HEALTH

THE NATIONAL HEALTH JOURNAL

MARCH 1957

35c

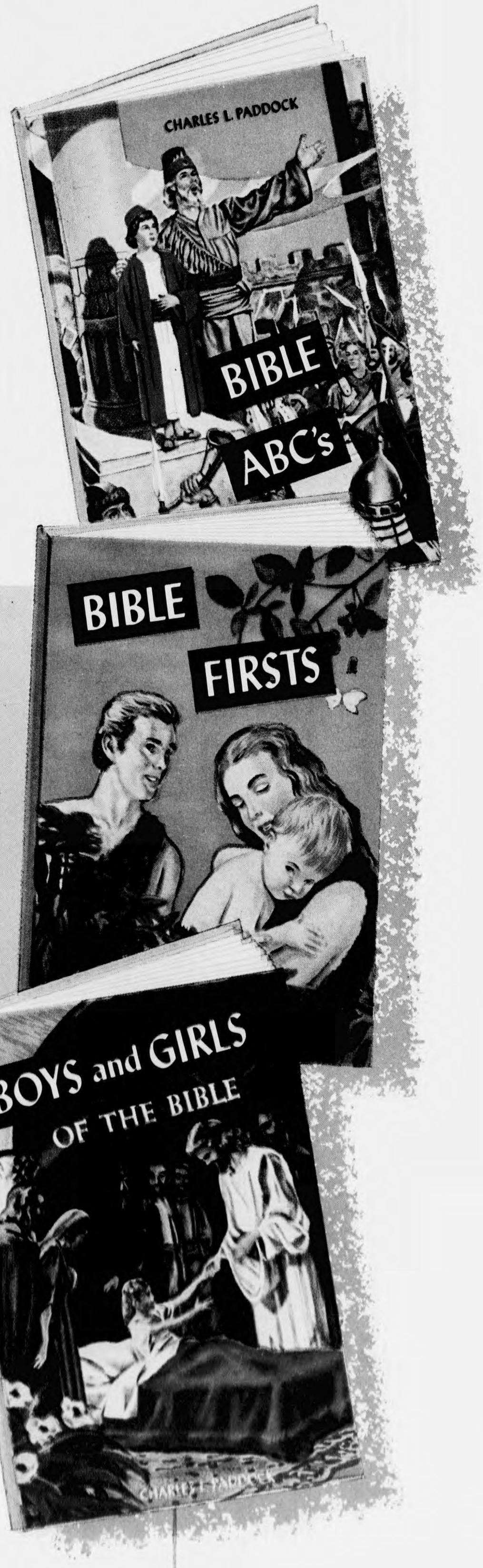
THE COMMON COLD

Life's Irritations

LOSE WEIGHT

THE TINY TOTS LIBRARY,

by Charles L. Paddock



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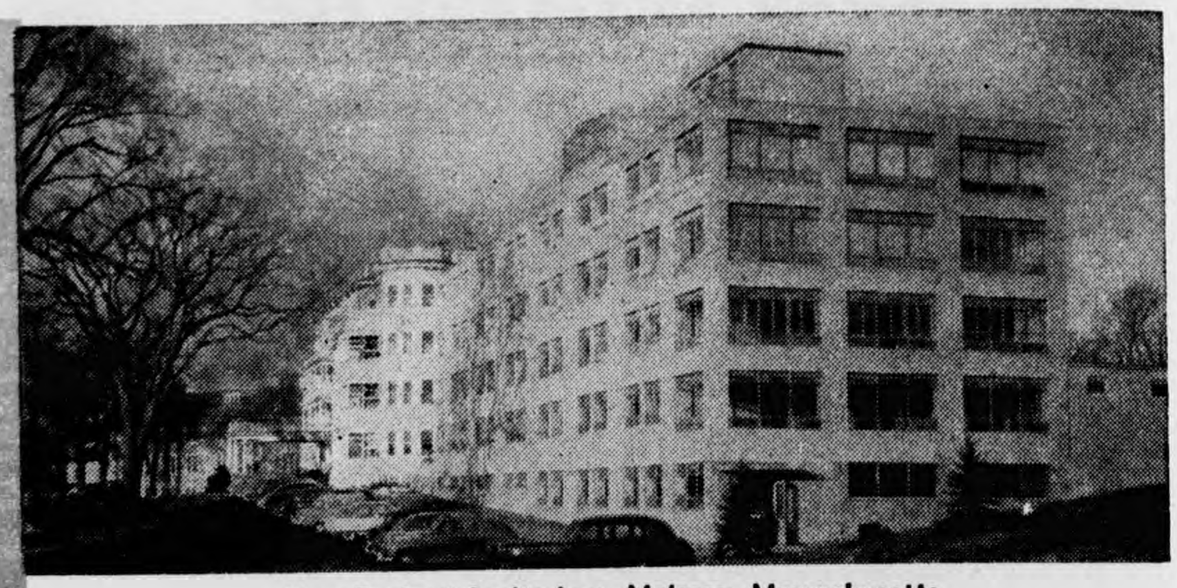
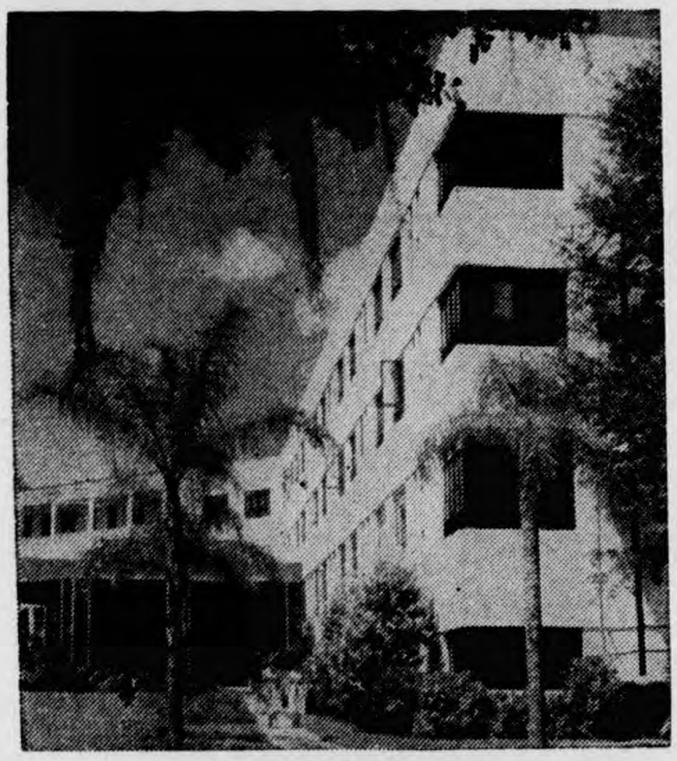


New England Sanitarium, Melrose, Massachusetts



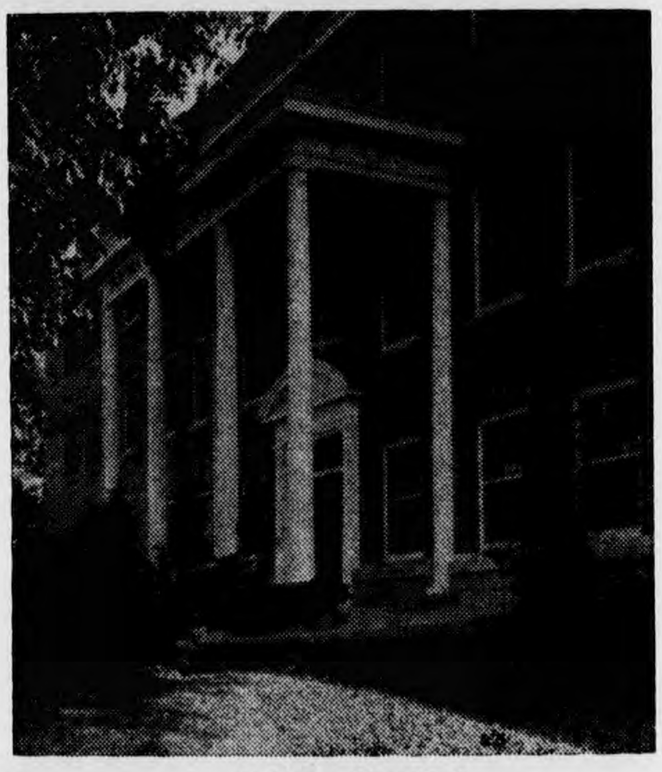
Florida Sanitarium
Orlando, Florida

Medical Institutions Affiliated With

LIFE and HEALTH

Around the circle of the world stretches a chain of medical institutions dedicated to the task of healing the sick and teaching the principles of healthful living. On this page are shown a few of the principal institutions of the chain—generally known as sanitariums—in the United States. To the sanitariums in this country come annually 335,000 persons—some as hospital cases, others as out-patients—for medical care.

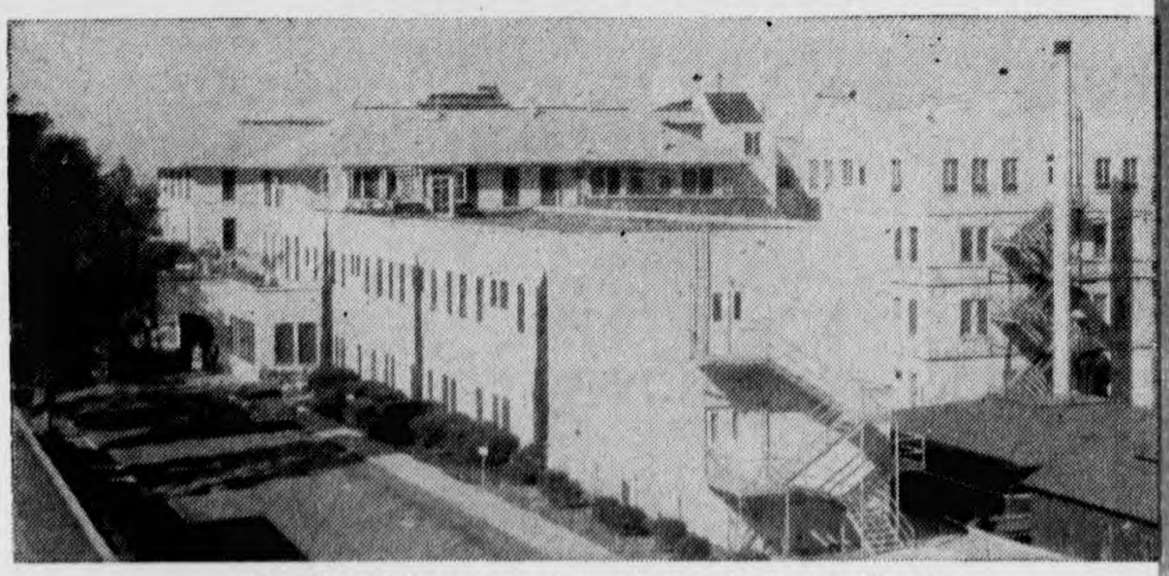
WRITE FOR INFORMATION



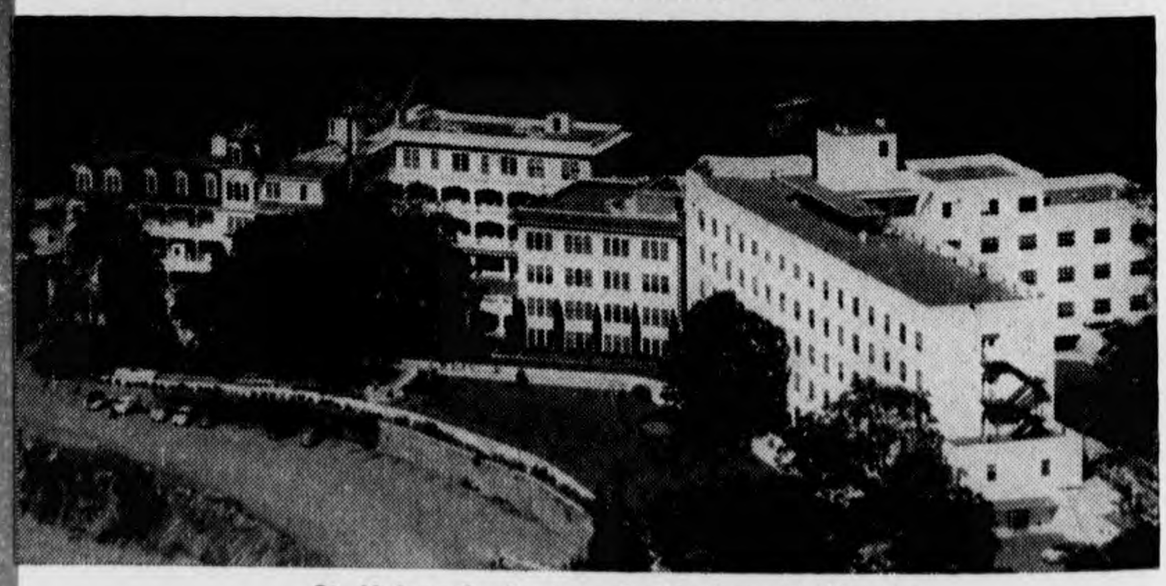
Takoma Hospital
Greeneville, Tennessee

Hinsdale Sanitarium, Hinsdale, Illinois

Glendale Sanitarium, Glendale, California



Paradise Valley Sanitarium, National City, California



St. Helena Sanitarium, Sanitarium, California

Portland Sanitarium, Portland, Oregon

Walker Memorial Sanitarium and Hospital, Avon Park, Florida

HEALTH

73d YEAR OF PUBLICATION

Vol. 72, No. 3 35c U.S.

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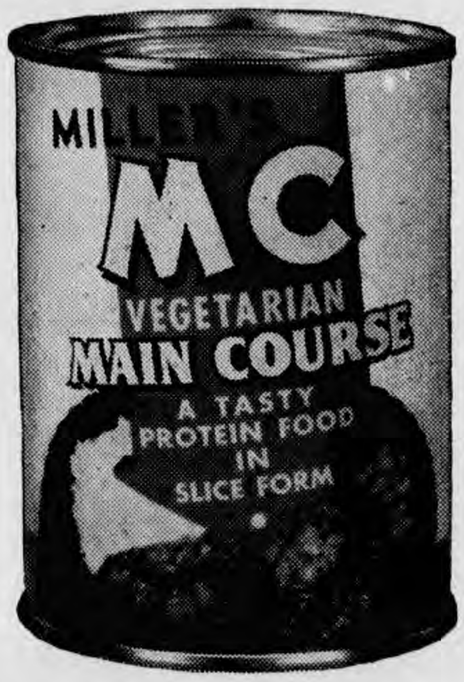

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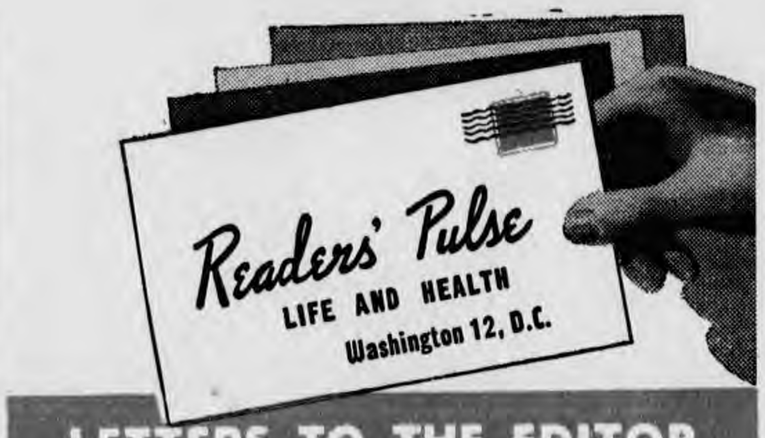


LETTERS TO THE EDITOR

HELPFUL AND CLEAN

DEAR EDITOR:

Only recently I became acquainted with LIFE & HEALTH, but was indeed glad to see how helpful and clean the material in it is.

MRS. H. H. HETHERINGTON

Wichita, Kansas

YOUNG MOTHER

DEAR EDITOR:

Please send a year's subscription of LIFE & HEALTH to me.

I am a young mother with two small children, and your magazine has helped me often. Thanks for your good work!

MRS. JAMES KALEBAUGH

Mission, Texas

GOOD FRIENDS

DEAR EDITOR:

Through the kind thoughtfulness of friends we became acquainted with LIFE & HEALTH.

LIFE & HEALTH is most stimulating and helpful for our minds, our bodies, and our spirits. We look forward to every issue. Too useful and worthy to let rest, after we have finished reading it every issue is passed along to other friends or mailed to embassies abroad.

I have just counted eight different magazines on our reading table. Only one of them is read from cover to cover. That one is LIFE & HEALTH.

MR. AND MRS. DAVID M. BAKER

Chester, Pennsylvania

CAN'T BE WITHOUT IT!

DEAR EDITOR:

I think LIFE & HEALTH is a wonderful magazine. It is so helpful and interesting I do not like to be without it.

MISS HELEN MCWETHY

Grand Rapids, Michigan

SORRY!

DEAR EDITOR:

I would like you to know I enjoy LIFE & HEALTH and will continue to subscribe for it. I am sorry I did not learn of it before. It is the most interesting little journal I have ever read.

I hope you get this letter in time for me to get the next issue at my new address. CHRISTINE JOHNSON

Washington, D.C.

FOR THE BLIND

DEAR EDITOR:

Words cannot express the gratitude I feel to those who have made it possible for the blind to get your magazine LIFE & HEALTH. I cannot help reading some of the articles twice—in fact, I study them.

Thank you for the noble work you and Mr. Degering and others are doing in behalf of the blind.

T. A. MARAIS

South Africa

FIRST OF THOUSANDS

DEAR EDITOR:

Enclosed is a check for a one-year subscription to the magazine LIFE & HEALTH.

In my humble opinion this is the best magazine I have found in this day of thousands of different kinds of reading material for the general public. We are very appreciative of having been introduced to your very fine publication. We are looking forward to the arrival of our future copies. MRS. LEROY MONDS

Rossville, Georgia

NICE VARIETY

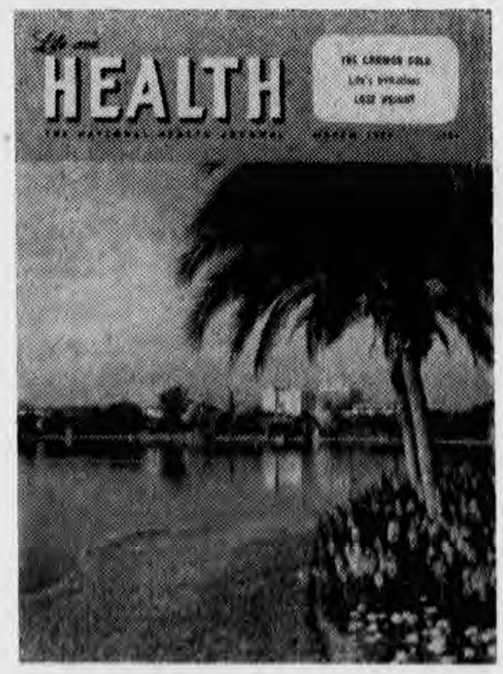
DEAR EDITOR:

I see that my subscription expires next month, so am sending enclosed check for another year's subscription to LIFE & HEALTH, as I do not want to miss out on any of the numbers.

I always read the magazine from cover to cover, and enjoy every bit of it very much. Such a nice variety of reading, and also good, useful, and helpful. I'm sorry I did not know about your magazine years ago. I hope I don't miss any of the numbers. MRS. ROSS MARSHALL

Fremont, Nebraska

THE MARCH COVER



Color Photo by Ewing Galloway

In the United States of America you can find almost any variety of climate and verdure—from the permanent snows of the high Rockies to the warm, palm-lined shores of sunny Florida.

In Florida the beautiful city of Orlando is almost in the center of the State. Your cover picture shows the skyline of the city across one of its many charming lakes.

March of Medicine

Corn Oil Reduces Blood Cholesterol

Corn oil, like olive oil and other oily foods, when substituted for butter or other animal fats, may help to keep cholesterol from accumulating in excessive amounts in the blood. The presence of too much cholesterol is thought to be a factor in artery damage leading to heart disease.

In experiments on one hundred medical students reported by Drs. J. M. R. Beveridge, Walter Ford Connel, and G. A. Mayer of Kingston, Ontario, Canada, there was a reduction in the blood cholesterol when corn oil was used to supply one fifth to three fifths of the calories in the diet. When the diets were high in butter, beef fat, chicken fat, or lard, cholesterol in the blood increased. Even after cholesterol in the blood had been decreased by a diet without any fat, the addition of corn oil further decreased the blood cholesterol.

☆ ☆ ☆

Mild Exercise Beneficial

Thomas Kirk Cureton, Ph.D., of the physical fitness research laboratory, University of Illinois, a former national swimming champion, is a great advocate of more exercise for the sedentary middle-aged man. It is not dangerous for an oldster to be physically active, says Dr. Cureton.

He urges all middle-aged softies to begin a mild program of exercise. One example is of a college professor of fifty who did a little gardening, fishing, canoeing, and walking, but very irregularly and mostly in the summertime. He was overweight, he had rising blood pressure, sluggish circulation, insomnia, and weak and painful feet. He simply didn't feel well. His work was done under considerable pressure. Fearing that he might break down as some of his friends had, he consulted Dr. Cureton.

After a careful medical examination Dr. Cureton recommended to him the following program:

1. Walk to and from work five days a week—about two miles a day.
2. Home calisthenics twice a day for ten or fifteen minutes.
3. A daily bath, cool six days a week, and short and hot one day a week. Vigorous towel rubs after each bath.
4. A long hike once a week.
5. Ultraviolet bath three times a week.
6. No fried and starch foods. Relatively more fruit and vegetables than protein foods.

After six months the professor without the aid of medicine was carrying his full professional load, had lost 28 per cent of his over-all fat and 46 per cent of his abdominal fat. His blood pressure had gone down, and his pulse had become stronger. He could do more work with less fatigue, and had increased his resistance.

This result shows what the older man can do to recondition himself by working along in moderation.

If more middle-aged people would keep a regular program of physical exercise, it would lengthen the life and cut down the number of tragic deaths from heart disease, Dr. Cureton believes.

Emotions Affect TB

Home happiness and love can actually prevent tuberculosis, according to Dr. D. M. Kissen, of the Department of Health for Scotland, in Edinburgh. In a questionnaire sent to TB patients she found that unhappy love affairs, divorce, or separation was prominent among the patients questioned who had come down with pulmonary tuberculosis. Emotional factors often preceded the onset of pulmonary tuberculosis.

More than 90 per cent of these factors could be grouped under "break or serious threat of a break in love links"—romance, engagement, or marriage. Other broken love links were bereavement in the family and enforced separation.

☆ ☆ ☆

Salt and High Blood Pressure

It has been shown that the amount of salt you sprinkle on your food may be a tip-off to your chances of developing high blood pressure.

In a scientific study of some 1,300 U.S. Government employees two physicians found that persons who reached automatically for the salt shaker before tasting their food had most frequent occurrences of high blood pressure; in fact, their rate was a third greater than those who salted their food merely when taste required it. It was found to be more than ten times as great as for those who never used salt at the table.

Next Month

SANITATION IN DISASTER

BY JOHN H. WHITNEY, M.D., *Director Health Office, Federal Civil Defense Administration*

Control of disease during any disaster is of major importance to the population.

EXERCISE AND YOU

BY THOMAS KIRK CURETON, PH.D., *Professor of Physical Education, University of Illinois*

Your main reason for exercising is to feel better for more rewarding living.

WHY USE A TOOTHBRUSH?

BY GLENN H. CURTIS, D.D.S.

You use a toothbrush three times a day. Here's why.

REGULAR FEATURES

GOLDEN AGE

CHILDREN'S PAGE

HOMEMAKER HINTS

THE EDITOR ADVISES

Break With COFFEE

EVER since the day that the head of a Moslem monastery, according to a Syrian legend, noticed that eating coffee berries made his goats frisky, and he brewed some to keep his monks awake at evening prayers, the world has been excited over the "cup that stimulates."

From the early days, when William Penn loved coffee so much that he paid $4.68 a pound for it, until today, when U.S. housewives object when it soars over $1.00 a pound, coffee has been a much talked-about, thought-about item of the American pantry shelf, drug counter, and drive-in tray.

I'm here to offer a bit of advice for the millions of Americans who are making themselves think that a cup of coffee calms the nerves—the people who would like to avoid the jitters and jumps, to sleep better at night, and not to have those tiny tremors that for all the world look like a case of nerves or old age creeping up to tap them on the shoulder.

I realize that I'm taking my life in my hands to discuss a subject dear to many Americans. I know full well it is said that Sultan Selim I liked coffee so much that he hanged two Persian doctors who said it was bad for the health. However, this is a fate I hope to escape.

Let me assure you that I am as much in favor of a pleasant social chat and a break from office routine as you are. I am sure such a break increases efficiency, as many industrial administrators have proved. But what many persons may not realize is that the cup of coffee they drink during a period of relaxation may account for some of their nervousness, insomnia, even palpitation of the heart, headache, or aggravated high blood pressure.

According to many pharmacology reports, the amount of caffeine given therapeutically—100 to 150 milligrams—is found in the average cup of coffee. Doctors use this dose to stimulate a patient who has been in a coma, is intoxicated, or is otherwise in danger of collapse. It is useful for its strong central-nervous-system stimulation. Yet every day millions of Americans are bombarding their brains with this powerful stimulant.

It is not uncommon for doctors to ask their patients, "How much coffee do you drink?"

"Oh, three cups a meal or so, Doctor."

Now you figure up how much caffeine is in that day's quota of coffee. There is 900 to 1,350 milligrams—several times the normal therapeutic dose.

The stimulative effect of this caffeine makes people feel more alert and makes their brains spin rapidly. Many a coffee drinker will note that he talks faster and almost incessantly after a cup of coffee. That is why coffeehouses are often places of social activity.

The action of coffee on the body is the action of caffeine, which is to stimulate the brain and all its reflexes. It stimulates the heart to stronger and sometimes more irritable action. This accounts for the heart flutter and thump that some get after coffee drinking.

Coffee stimulates the stomach acids by virtue of its oils and caffeine, hence persons prone to stomach ulcer are warned by their doctors to go easy on coffee.

High blood pressure victims are warned against its use because the action of the caffeine in coffee is unpredictable; it may make the blood pressure go up by stimulating the heart or make it drop by dilating blood vessels close to the skin. Obviously, in a disease where quiet relaxation and sedation are important the stimulation of coffee is not to be desired.

The fatigue factor, which coffee seems to erase, is one of its worst dangers, though the effect most sought after by Americans. Coffee erases feelings of fatigue. It blots out the danger signals, and while your body is crying for rest, relaxation, and a reclining position on a soft bed, you lash it relentlessly when you give it coffee. You virtually say, "You aren't really tired," and the coffee stimulation says, "Go to it. Get back to work. You're good for another full evening of fun or frenzy."

Although the toxic effects of coffee are usually not noted until late, most drinkers experience them sooner

or later. Insomnia, restlessness, and excitement are the earliest signs. Later, ringing in the ears and flashes of light are common. Rapid heart with fluttering may appear, then muscle tremors and quickened breathing. Frequency of urination owing to the stimulation of the kidneys by the diuretic action may be present also. More and more Americans are due to suffer coffee jitters over more than the price, as shown by a few awesome statistics. The nickel cup of coffee has risen to 15 cents, but it hasn't cut the insatiable appetite of the American public.

Our coffee consumption in 1900 was 7,000,000 132-pound bags of coffee; in 1953 it was 20,500,000 bags. This reflects the tempo of the times in which we live. With tension running high, we seek to relieve it with the coffee break. Since 1940, during the war years, when Americans began taking morning and afternoon coffee breaks and millions of servicemen used coffee to kill the taste of chlorine in the water, coffee consumption has jumped 30 per cent.

Someone has figured that the 5,500,000,000 gallons of coffee we drink each year, if poured over the Niagara River, would take fifteen hours to tumble over Niagara Falls on the American side. What a lot of sleepless nights that represents!

Now, we have no complaint against caffeine as such. It has its place in medicine and a valuable place in the hands of physicians. The rest period, the social session, the fun fest, all have their place. But we feel sure that many a coffee drinker doesn't realize that he comes away from these "breaks" stimulated rather than relaxed. He went to the counter already nervous, and after his cup of coffee came away even more so, although he may have felt less fatigued and frazzled because the coffee had momentarily erased his tired feeling. After he got back up to the office or later in the day he noted a letdown, which required either another cup of coffee or another cigarette to pick him up to the normal level of activity.

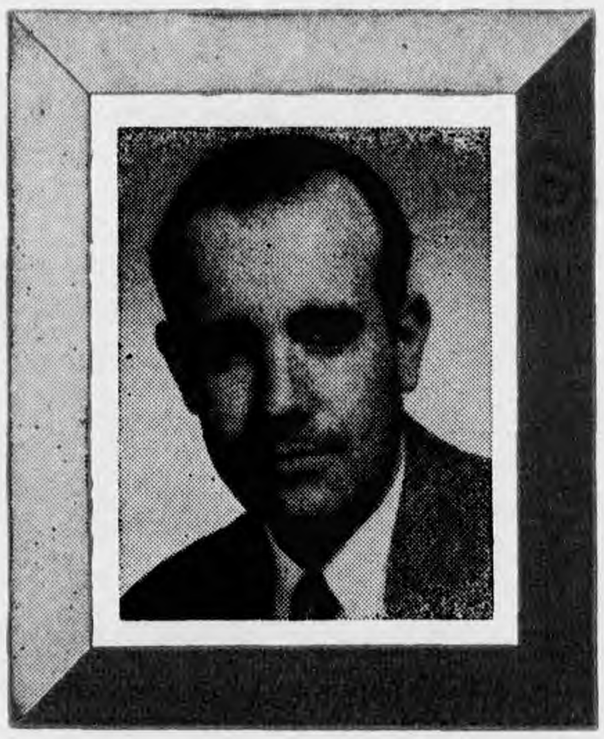
So we do recommend a break with coffee. Break the habit with a good drink during your social session. Make it a relaxing warm drink—milk, fruit juice, Ovaltine, Postum.

Make your drink a body builder, not a body breaker.

Yours for better health,

J. Hewitt Fox, M.D.

PROFILES of Our Contributors



Robert L. Marsh, M.D. ("Pilonidal Cysts," page 15), is assistant professor of surgery at the College of Medical Evangelists School of Medicine, Los Angeles.

He was born in Nebraska, reared in Glendale, California, still lives in the house of his boyhood, and is rearing his two children there—Christopher, two, and Victoria, five. He is married to the former Marguerite Strahle.

Dr. Marsh is a graduate of the Glendale Union Academy and Glendale City College. He also attended Union College in Lincoln, Nebraska. His M.D. is from the College of Medical Evangelists.

After his graduation from medicine, Dr. Marsh served as a flight surgeon in the Air Corps in the European theater.

Upon his discharge from the service he did a six-year residency in general surgery at Veterans Hospital and White Memorial Hospital, Los Angeles. He is certified by the American Board of Surgery, and has been practicing surgery in Glendale, California, for four years. He is the author of several articles in scientific journals, and is a member of the board of directors of Audio-Digest Foundation (Audio-Digest is a subsidiary of the California Medical Association that provides a tape-recorded medical literature service to doctors).

Photography is one of Dr. Marsh's favorite hobbies, and he combines it with the preparation of medical lectures for Audio-Digest.

Dr. and Mrs. Marsh are widely known in southern California as musicians, and they frequently sing in church services and oratorios, and at banquets. In his medical school days Dr. Marsh sang regularly on the radio.

The Marshes drive an Oldsmobile and enjoy vacations in Yosemite and the High Sierras.

Robert H. Ruby, M.D. ("Lose Weight," page 14), is a resident physician in surgery at St. Louis County Hospital, St. Louis, Missouri.

He was born in Mabton, Washington, and received his early training at Whitworth College in Spokane. His M.D. degree is from Washington University School of Medicine, St. Louis. Being single, he has a daily life of work in the hospital from seven in the morning until ten at night.

His hobbies include the reading of biographies, exercising, stamp collecting, and swimming.

Dr. Ruby prefers informal attire, and likes to lounge in sport shirts and slacks whenever possible.

Being impressed with the many patients who because of the handicap of being overweight do not undergo surgery well, Dr. Ruby wrote this article with the purpose of helping people to a higher level of health.

Don't Miss

WHAT EXERCISE CAN DO FOR YOU

By Thomas Kirk Cureton, Ph.D., F.A.P.H.A.

Professor of Physical Education
University of Illinois

in the APRIL

Life and HEALTH

What's Getting Under Your Skin?

℞ CLIFFORD R. ANDERSON, M.D.

EWING GALLOWAY

THINGS will not always go smoothly at home, but you should remain pleasant and agreeable for your family's sake. They are hurt by upsets.

JOE BROWN was a builder, a capable man with big muscles and a broad smile. He employed many men, all of whom admired him greatly. He thoroughly enjoyed his work, and he had many friends.

In spite of his popularity he had his troubles. He had an irritating rash that came and went. Life was miserable for him in spite of his success. The skin on his face, arms, neck, and back would become covered with red, blotchy patches that itched constantly. This was particularly true whenever the weather was warm and humid. Joe had tried all kinds of ointments and medicines. Some of them helped for a while, but in the end the rash always returned.

What was the cause of Joe's rash? Was it an allergy? Yes, in a way it was. But Joe's difficulties went much deeper than the surface of his skin. Joe was suffering from what doctors call neurodermatitis. That is a type of skin inflammation brought on, or greatly aggravated by, worry and anxiety.

To meet Joe you would think he never had a care in the world. He could always put up a fine front and make you believe all was well. In spite of Joe's jocular talk and ready smile, there was no happiness underneath. He was merely trying to make the best of a bad situation, which for years he had stubbornly refused to recognize. Joe was desperately unhappy at home. At work he was all that a good boss could be. At home he never seemed able to please his wife or his children.

It was nobody's fault in particular that Joe's home was not a truly happy place. As usual, there were plenty of faults on all sides. No matter where we go in this world, we will never find perfect homes or ideal families. In spite of all the pretty stories written by brilliant novelists, there are no couples that were "just made for each other," except Adam and Eve. You will remember that even they got into plenty of trouble!

True success in married life does not depend on our being perfect ourselves or on having a perfect mate. It depends almost entirely on our ability to make the adjustments of personality necessary in order that all concerned will be truly happy. This is never a one-sided affair. All the family have to share in one another's joys and sorrows. They must learn to bear one another's burdens.

There is an art to being able to live happily with another person, an art that all too few ever master. Often we show the best side of our natures to the out-

Irritations can bring on many illnesses, even when you are not aware that they do.

side world, reserving the worst side for those who are closest to us and who have a right to expect the best from us. Too often we are thoughtless, forgetting to be kind in word and action.

By nature we are basically selfish, and it may take a serious illness to show us our weaknesses. Far too many of us are looking for a miracle to straighten out the miserable side of our natures. Many of us would find it far easier to submit to an extensive surgical operation than to face up to reality and straighten out the wrinkles in our personalities. Many people think that a series of electric shock treatments or some intricate operation on the brain is the answer to their personality problems. In most cases little or no good will result unless a person is willing to make the change himself.

So it was with Joe. He worked hard and long to provide for his growing family. He was sure that wealth would somehow bring him the happiness he craved. He was a good provider, but he failed to show his family any real love, as even his youngest child was well aware.

Often we forget that little children are mirrors reflecting their parents' maladjustments and inability to express affection. Love begets love. Youngsters who are just learning to talk will sometimes come out with the most alarming statements, often to the dismay of their parents. The unmatured mind of a little child can all too often show up the weaknesses and frustrations of the adult world.

As a businessman, Joe was a real success. In fact, he was keeping two families, for his present marriage was not his first. Out at business Joe was a good fellow, but at home the second Mrs. Brown was no happier than the first Mrs. Brown had been. It was not entirely the fault of the women, although both had their limitations. Underneath, Joe had a bad temper. He did not have very much to say at home, and was often sarcastic, especially when he was tired. On petty things that really did not matter at all, Joe could be as stubborn as a mule, and when he did not get his way he was inwardly angry. But still he said little. He kept his injured feelings to himself, and sulked in a corner. Unfortunately, the children always brought out the worst in their father.

With all this stress, something was bound to happen, and in the end it did. Joe tried hard to swallow his feelings, but finally they came out on his skin in the form of this chronic rash. Several skin specialists examined Joe, but found no specific germs. They told him to take more time off to rest. Extra rest helped for a while, but the effect was only temporary. As soon as Joe got back into the old situation, the rash returned to plague him. To make matters worse, his mother-in-law, who never had a good word for him, came for a prolonged stay. Joe was desperate, and his rash itched worse than ever.

Finally in his search for help he found a doctor who was willing to sit down and talk things out with him. It was not too easy for Joe, but the doctor insisted that he discuss freely every phase of his life in which he had been under some particular emotional strain. The more Joe talked about himself, the more clearly he saw how constant nervous strain and misunderstanding were contributing to his discomfort. In spite of an outward smile, Joe knew that inside he was a very unhappy person. He had never been able to adjust very well to family life, and that was the reason for much of his bad temper.

Frustrated feelings are a cause of skin trouble in a great many people. This is because most types of stress within the body are transmitted to the skin. Healthy skin has *(Turn to page 33)*

ILSE NOTHMANN, FROM MONKMEYER

YOU will be a better businessman, and you will have improved health, if you keep down tensions.

The Too Common Cold

℞ HUBERT O. SWARTOUT, M.D., Dr.P.H.

THE man who invents a sure way to prevent colds, or a dependable quick cure, can soon be a millionaire. Few of us escape having at least one cold a year, and we would gladly pay a substantial amount of money to avoid the nuisance and discomfort that come with it.

I once saw a rather humorous statement in an English publication: "A cold can be cured in two weeks by almost any popular treatment, but it will subside in a fortnight if you let it alone."

It is quite likely that the cold was so named because people believed that getting chilled was the chief cause. Actually, the temperature of the air or the state of the weather has little to do with causing colds; other factors are much more important. An isolated group of people living in a frigid region goes through the coldest season completely free from colds,

Most of us are altogether too familiar with colds. We need a dependable cure.

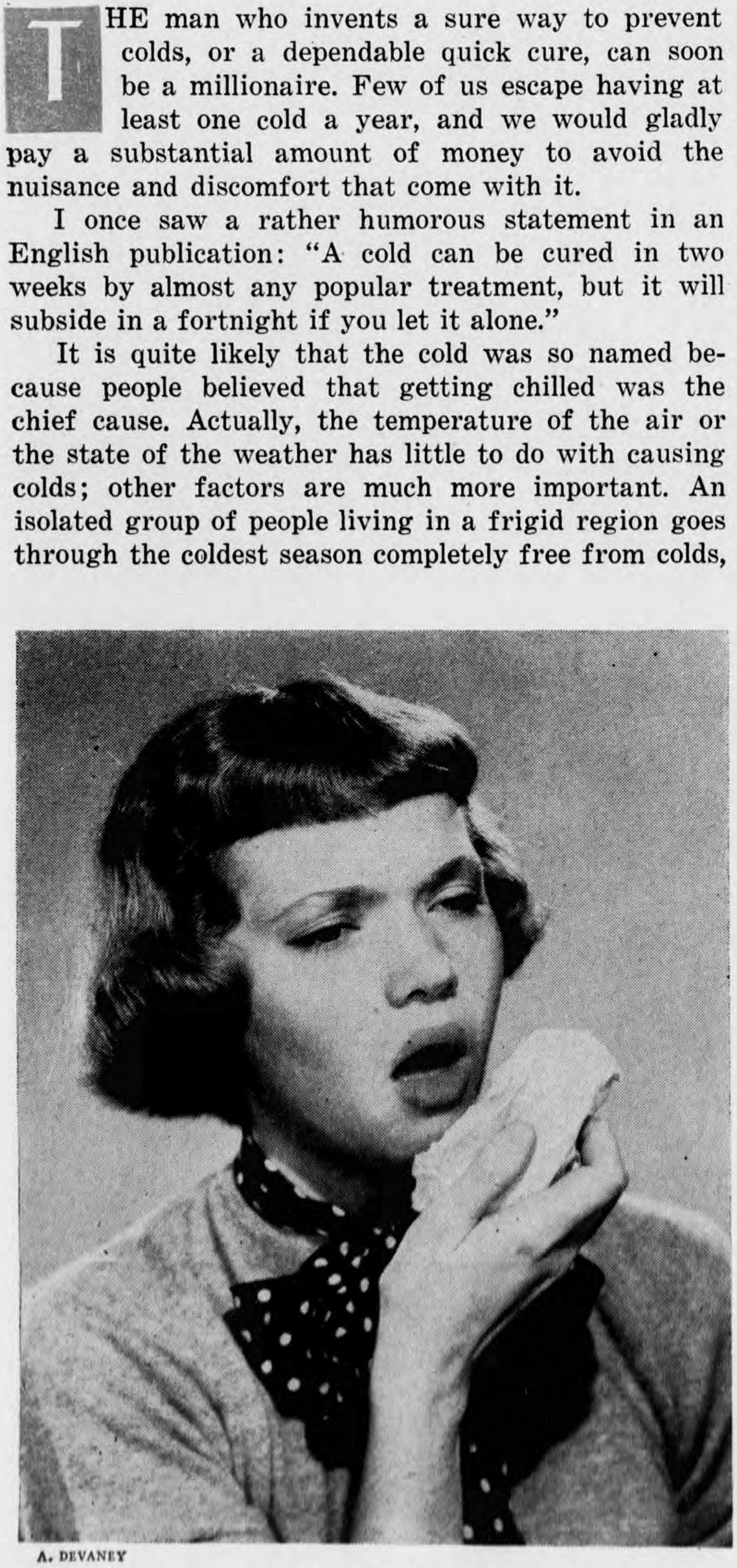
but develops them promptly when moderating temperatures invite visitors from the outside world. A study of colds from this and other points of view has led to a general agreement that they are contagious and that their immediate cause is one or more of a group of viruses.

This discovery aroused the hope that a vaccine to immunize people against colds might be developed. Thus far no virus vaccine has done any measurable good in preventing colds. In some virus diseases the malady itself produces a lasting immunity. A cold may build up a brief immunity in some people, but patients can and often do have another cold within a few weeks or months after recovering from the previous cold.

This is not to say that all so-called cold vaccines are useless. Mixed respiratory vaccines are rather widely used, and doubtless do some good. But they are not virus vaccines at all. They are made from several of the common bacteria, or germs, that are present in our air passages and that take hold and cause many of the symptoms that develop after the onset of a cold. These medicines may help shorten the course of a cold and prevent some undesirable side effects or after effects.

Since at present there is little or no hope of building specific resistance against a cold virus by means of vaccination, we must maintain a high level of general resistance and body vigor. This means giving attention to balanced diet, exercise, rest, cleanliness, protection from the elements by proper clothing and housing, and other hygienic measures. If we know what happens in the body when it is attacked by the virus and what the body does to resist the attack, we can help these natural body activities and so decrease body damage and hasten recovery.

The onset of a cold is generally marked by las-



A. DEVANEY

YOU need not pass your cold around. Be careful not to spread germs.

situde or weakness, chilliness of some parts of the body, perhaps fever and headache, nasal stuffiness and discharge, and sneezing. There may be sore throat, which may cause coughing.

The lassitude that often accompanies a cold is frequently caused by the poisonous effects of the virus.

Chilliness is a sensation caused by the nerves in the skin. It is the result of circulation disturbance, which cuts down the supply of blood to the skin and extremities. This same disturbance of the circulation leads to general body congestion, with increased supply of blood and a sluggishness of its motion through the blood vessels. This condition helps to cause the headache and nose and throat distress.

So far as the lassitude is concerned, it is not wise to force a tired body to keep up normal activity. Rest is needed, and bed rest is best.

The body seems to overcome the cold virus rather quickly, for the contagious stage of most colds lasts but a few days, usually not more than three or four. But the power to fight disease germs comes from freely flowing blood, so the circulation disturbance must be overcome to relieve the headache and other distressing symptoms and hasten full recovery from the attack of the cold virus.

Various methods have been used to bring blood back to body parts and reduce both the congestion and the stagnation in other parts. In the days of our grandmothers a sweat was often given to break up a cold. Such treatment brings blood to the entire body surface and speeds the circulation. This old treatment has a rational basis, and reviving it would be far from a bad idea.

Numerous drugs have been used as cold remedies. The most common is probably aspirin, alone or in combination with other drugs. Whisky, rum, gin, and other liquors, either alone or in various combinations, used to be widely recommended. Aspirin tends to cause sweating. Taking alcoholic beverages is followed by a dilation of the blood vessels of the skin, as is evidenced by the flushing of the face. Any apparently beneficial effect on a cold would be due to this fact.

There is insufficient space in this article to discuss the effects of all or even a fair fraction of the other common cold remedies. It is far more important to try to clear up the question as to whether drugs or natural remedies are better.

It is obvious that the curing of the cold is not the only factor to be considered in choosing a remedy. Many remedies that are more or less successful in curing colds must be rejected because they produce side effects that are undesirable or even harmful. This is the case with most drugs, even aspirin, which is generally considered a harmless medicine. Aspirin may be poisonous to babies, and in certain cases there may be damage to the hearts of older people. Some people should never take it at all, and the less taken by anybody the better.

When it comes to alcohol, in whatever form, it is still alcohol, and is subject to all the drawbacks of alcohol. In our day, alcohol is seldom used as a cold remedy except by persons who (*Turn to page 21*)

PHILOSOPHY OF LIFE

THE MINISTRY OF SOLITUDE

By H. M. TIPPETT

To be caught in a mob and pushed along to scenes of violence and lawlessness against one's will is a terrifying ordeal. Such was my experience one time when the anger of citizens in my home town had been aroused to fever pitch against a policeman for his brutal treatment of a drunken man whose offense was trivial.

Suddenly I found myself in the middle of a crowd moving upon the policeman. Seeing the menace confronting him, he quickly commandeered a car and was rapidly driven to the city hall. Carried along against my will by the pressure of men on every side, I was jostled to the very doors of the jail, where a loud clamor was raised for release of the officer to the clutches of the mob. An alarm was turned in, and a fire truck responded. Soon streams of water were playing on the surging crowd. Only as they moved back was I saved from being drenched. Gradually the excitement of the milling men abated, and I escaped.

Jesus saw the pathetic needs of men in the mass. He was moved to compassion by the multitude, for He knew that in a crowd a man's individuality is forfeited, his loyalties are confused, and his personal dignity obscured. He saw how helpless humanity is when it is dominated by the mass mind, and how the sanctities of life are defiled when men and women are caught in the meshes of a disordered humanity. Mobs are never on the side of law and order, and sometimes popular movements partake of the same lawlessness.

As the result of rubbing shoulders with too many people, millions of Americans have frazzled nerves. Serenity of mind, healthful relaxation, and spiritual composure are not notable end products of participation in a social whirl or in identification with partisan causes. Wordsworth's observation is still discernible as true in public and private life:

"The world is too much with us; late and soon
Getting and spending, we lay waste our powers."

The thought of solitude, however, frightens some people. The suggestion of meditative retreat, where a man can confront himself and take inventory of his personal potentials, is distasteful to them. However, out of occasional solitude and self-communion and a facing up to life comes the strength that gives pause to the impetuous and sanity to the distraught. It is the poise of all such that brought forth the poet's observation:

"The stern were mild when thou went by;
The flippant put himself to school and heard thee;
The arrant fool was silent and he knew not why."

LOSE WEIGHT

℞ ROBERT H. RUBY, M.D.

Your doctor wants you to stay within normal weight for your health's sake.

AT ONE of the yearly American Medical Association conventions entire programs and exhibits dealt with the alarming problem of obesity. Insurance companies have prepared booklets showing statistically that this disease is taking an increasing death toll.

The doctor is facing more and more the problem of the overweight patient. Obesity is a menace. Overweight people are poor anesthetic and surgical risks. In other illnesses they are difficult to treat and heal.

Obesity is one disease the person himself can control, in most cases. It differs from heart disease and cancer, where the physician's services are needed constantly. More than 90 per cent of the obese can lose their weight by self-determination, will power, concerted effort, and common sense in dietary habits. No doctor can do any of these services for his patient. We cannot escape the fact that most of the obese are overweight because they eat more food than the body needs. Unless these people overcome the vicious habit of overeating, they are hastening their demise.

You can lose weight. Here are nine ways to cure your disease and make life longer and happier.

1. Eat Less.

The average American loves to eat, and he eats indiscriminately. A simple rule to follow is to take small helpings, refuse seconds, and eat no between-meal snacks.

The craving for food above the amount necessary to run the body is habit. Although a rigid stand against overeating is difficult at first, most people can control, and finally do away with, the hunger pangs.

2. Exclude Fatty Foods.

Make it a rule to eliminate gravy, mayonnaise, sauce, and other such food amplifiers from your plate.

Do not eat fried foods. Prepare foods by broiling, boiling, and roasting.

3. Keep Butterfat to a Minimum.

Drink skim milk or buttermilk. Use skim milk in cooking. Use only small amounts of butter or reinforced margarine as a spread or in cooking.

Use cottage cheese and other milk products from which the fat has been removed, in place of other cheeses.

4. Eat No Desserts.

Lush desserts, creamy pies, and velvet cakes are the greatest weight adders and the hardest for the dessert fiend to do without. Desserts should be omitted by the obese except for an occasional dinner out, when they do not want to offend their hostess.

For the most part, eat fruit for dessert, with sherbets, sponge cake, and other nonfat delicacies occasionally. Nuts, which are exceptionally oily, and candy should be excluded.

5. Drink No Alcoholic Beverages.

All alcoholic drinks are enemies of the obese. If you must have a glass in your hand, fill it with water or unsweetened fruit juice.

6. Eat a Well-balanced Diet.

There is no substitute for a diet including proper protein, low carbohydrate, and minimum fat. Vitamin and mineral requirements must be supplied through plenty of leafy salads, vegetables, and fruits. Protein builds and replaces worn-out body tissues. Carbohydrate is needed for energy.

A certain proportion of all the classes of food is needed to supply the body with all of its requirements. A person in good health, taking a well-balanced diet, does not ordinarily need vitamin supplements.

Do not try publicized stunts, such as excluding salt from your diet, to lose weight. You will do well to avoid excess salt, but your body does need a little.

7. Do Not Overexercise.

Exercising is a poor way to lose weight. Excess physical energy overstimulates the appetite. The amount of work required to lose one pound of weight increases the desire for a food intake that will usually add more than one pound. Such exercise, to be effective, would have to be maintained day in and day out.

In older persons, overexercise is not desired in the presence of progressive body changes, such as hardening of the arteries and allied conditions. Undue effort may cause undue strain on the heart. Normal activity and moderate exercise, with less food properly proportioned, is the answer. (*Turn to page 29*)

Pilonidal Cysts

℞ ROBERT L. MARSH, M.D.

"Pilonidal" means "nest of hair." Such a cyst gives the patient much trouble, but can be helped by surgery.

PILONIDAL DISEASE is a hair pocket or a cyst or an abscess between the buttocks. It is not a rare problem. The name *pilonidal* means "hair nest" (*pilus*, "hair"; *nidus*, "nest"). It was coined about seventy-five years ago. One out of every thousand young adults will develop a pilonidal cyst. No one understands why the condition is confined mostly to young white men. It occurs up to ten times as often in men as in women.

In the United States Army, pilonidal disease is a frequent and expensive problem. Each year about one in every three hundred soldiers will be hospitalized for it. During World War II, 77,637 Army patients were treated, and 3,387,000 man-days were lost, at a cost of $100 million, owing to pilonidal disease.

Repeated bruising or rubbing in the area, such as riding in trucks and jeeps, may bring it on. Hence, it has been called jeep-seat disease. Barbers have been known to develop similar cysts in the webs of their fingers. Abscesses may burrow under the skin and form sinus tracts.

One of the first indications that something is wrong is the development of a boil or abscess between the buttocks. Sometimes the person merely feels a tender hardness. Inspection reveals one or more very large pores with protruding hairs or sometimes draining pus.

The typical pilonidal cyst patient is a hairy young man who is careless about his personal hygiene. He may be fat and have acne and skin changes owing to the sex hormones, and secondary sex characteristics. He frequently perspires excessively.

The cause of pilonidal disease is not known for sure. Formerly it was believed to be due to a congenital cyst, developed before the person was born. More recently, many doctors believe that poor hygiene after bowel movements may be a cause. There is little doubt that one can cause such an infection by rubbing fecal material and ingrowing hairs down into other hair follicles, with toilet paper. The lesson we can learn is to bathe the area daily, have frequent bowel movements, and use meticulous toilet technic.

To make the diagnosis of pilonidal disease, the doctor will carefully examine the area to be sure that the tenderness is not due to some other condition. Fortunately, the pilonidal condition never becomes cancerous. If the swelling is not painful, it may never become a serious problem to the person. The commonest complication is an acute abscess or a chronic drainage of pus. These tracts may even burrow widely.

Surgery offers the only cure for pilonidal disease. The plan of surgical treatment may vary widely. If the abscess is acutely inflamed, the doctor may merely cut it open to allow drainage. In any event, the area should be shaved widely and as closely as possible.

The cysts are never cured until the entire sac or lining is dealt with by the surgeon. Because cysts sometimes recur after surgery, many variations of the operative procedure have been devised so that the surgeon may choose the type of operation that fits the particular case.

The operations are not dangerous. After surgery the area will heal within one to four weeks. The patient must understand that once a cyst has been removed surgically, he can still have recurrences, owing to the fact that he may not have changed (*Turn to page 23*)

Train Up a CHILD

By LOUISE M. BROWN, R.N.

Now is the only time you will have to train your child for a worth-while life.

THE most immediate, influential, and conditioning environment of young human beings is family life and its relationships. Through the family the child enters the world and first finds out what it is like. The family embraces the child with a degree of closeness that no other social group will ever approach. It holds him in almost exclusive possession during his formative years, when the deep basic traits of personality are molded for better or for worse.

It is unfortunate that the most notable omission from the list of general educational values is religion. When the *New England Primer* made its appearance in Boston in 1690 it was edited for Puritan use, and heavily weighted with religion. The early editions included morning and evening prayers for children, moral lessons, grace at mealtime, and the Lord's Prayer. One of the major features of the book was the Westminster Catechism, which was called "spiritual milk for American babies." The *New England Primer* is said to have taught millions to read and not one to sin.

Religion has been observed to be a universal need of human nature, but religious life in the home is taken far less seriously now than formerly. Nominal church membership remains about the same, but the church is no longer the center of the community, as it once was. Prayer and religious ceremonies have all but disappeared from the home.

The greatly decreased influence of the church on daily life creates a need for compensating factors. A new type of education that aims at a satisfactory philosophy is indicated. The groundwork of character development is laid in the home.

In the home the child first comes to know other human beings intimately. His outlook on life, his character, and his social attitudes are determined by family influences. Here the social nature and ideals of the individual are molded for life.

For better homes we must have better parents. The early years are the most formative. It has been stated that a child who receives Christian training for the first seven years will remain a moral and upright citizen for the rest of his life. "Train up a child in the way he should go: and when he is old, he will not depart from it."

Children who are brought up under the wise and loving guidance of Christian parents will have much less desire to wander in search of pleasure and companionship. Evil will not attract them. The spirit that prevails in the home will mold

A. DEVANEY

WISE and loving parents are firm in their discipline, but they do not beat a child into submission.

EVA LUOMA

LOVE and special understanding of children create lifelong adjustment.

their characters. They will form principles and habits that will be a strong defense against temptation when they leave the home and take their place in the world.

Abraham Lincoln is one of the many outstanding examples of the result of early training in the home. He has said, "All that I am or hope to be I owe to my angel mother."

Christ, our example, studied the Scriptures. As a child He was taught daily at His mother's knee from the scrolls of the prophets. His mental and spiritual power is a testimony to the value of the Bible as a means of education.

In giving His Word, God did not overlook the children. In the simple Bible stories the great principles of the law of God may be made plain. Parents and teachers may begin early to fulfill the Lord's injunction: "Thou shalt teach them diligently." Object lessons, blackboards, maps, and pictures are all helpful in explaining lessons and fixing them in the children's memory. Even in the nursery age, God may be interpreted to children, for they may see reflected in the parent the goodness they will later identify with God.

Influence rather than instruction may be offered in the very early years. Contact with the beautiful things of nature will help widen the child's happy experiences. He may be taught kindness, helpfulness, beauty, fairness, courage, and wisdom by means of examples in nature. God may be made meaningful and helpful to him as the years pass. A child's religion depends a great deal on the parents', for better or worse.

Religion is real to children. It was found that about a fifth of a tested group of children thought of religion only as a preparation for life after death. Others in the group thought of it largely as a conformity to familiar forms of conduct prevailing in the home, the church, and the community. To others it meant saying their prayers and attending church regularly with their parents.

The unhappy family situation where children are tossed from one parent to another may cause grave maladjustment when the child reaches adulthood. The emotional symptoms exhibited are apparently the result of frustrations and conflicts experienced in home situations.

Noted psychologists have come to the conclusion that religion is the most effective means and basis for building an integrated personality. The heart of religion is in the home. The responsibility lies heaviest on the parents. One of the most potent influences in a child's life is his parents' attitude toward each other, and toward good and evil. You cannot push your child one way as you go another.

As they penetrate more deeply into the mysteries of human personality, the greatest exponents of the importance of religion are becoming urgently aware of the need of a religiously inclined life within every person. A person needs religion not only for the "soul's health" but also for true maturity and integration of personality, without which he cannot reach the heights of usefulness or the heights of happiness of which he is capable.

Many doctors find that their patients are suffering from lack of religious faith. When faith is restored, it greatly helps them regain their mental health.

The atmosphere in the home is a help or a hindrance to the child's religious growth. Early experiences should be happy ones, so that the name of God is associated with joyful things. In God's original plan for man on the earth the home was the center of all life's activities. One of the highest functions of the Christian church is to promote the establishment of ideal homes, to educate parents and children to their privileges and respon- (*Turn to page 21*)

PLASTIC SURGERY FOR

CHILDHOOD DEFECTS

℞ WILMER C. HANSEN, D.D.S., M.D.

Many needed corrections of the body are better made in babies and young people.

HIPPOCRATES, the father of medicine, once remarked: "War is the only proper school of surgeons." No physician or surgeon would condone war as an instrument of learning, but it must be admitted that the two world wars have been valuable means of accelerating the progress of plastic and reconstructive surgery.

Wartime plastic surgeons reviewed the medical books and journals and brought together scattered contributions to plastic surgery. Their teamwork resulted in tremendous success, so that now the man who has been disfigured need not be condemned to a life of unhappiness because of his appearance. Their work showed that the surgeon's art is not simply saving and curing, but also creating.

With World War II this truth became even more evident. Even on the battlegrounds, when all the surgeon could do at the moment was to save a wounded man's life, his previous training reminded him that a plastic surgeon would follow him.

Three recent innovations have increased the scope of plastic surgery in everyday practice:

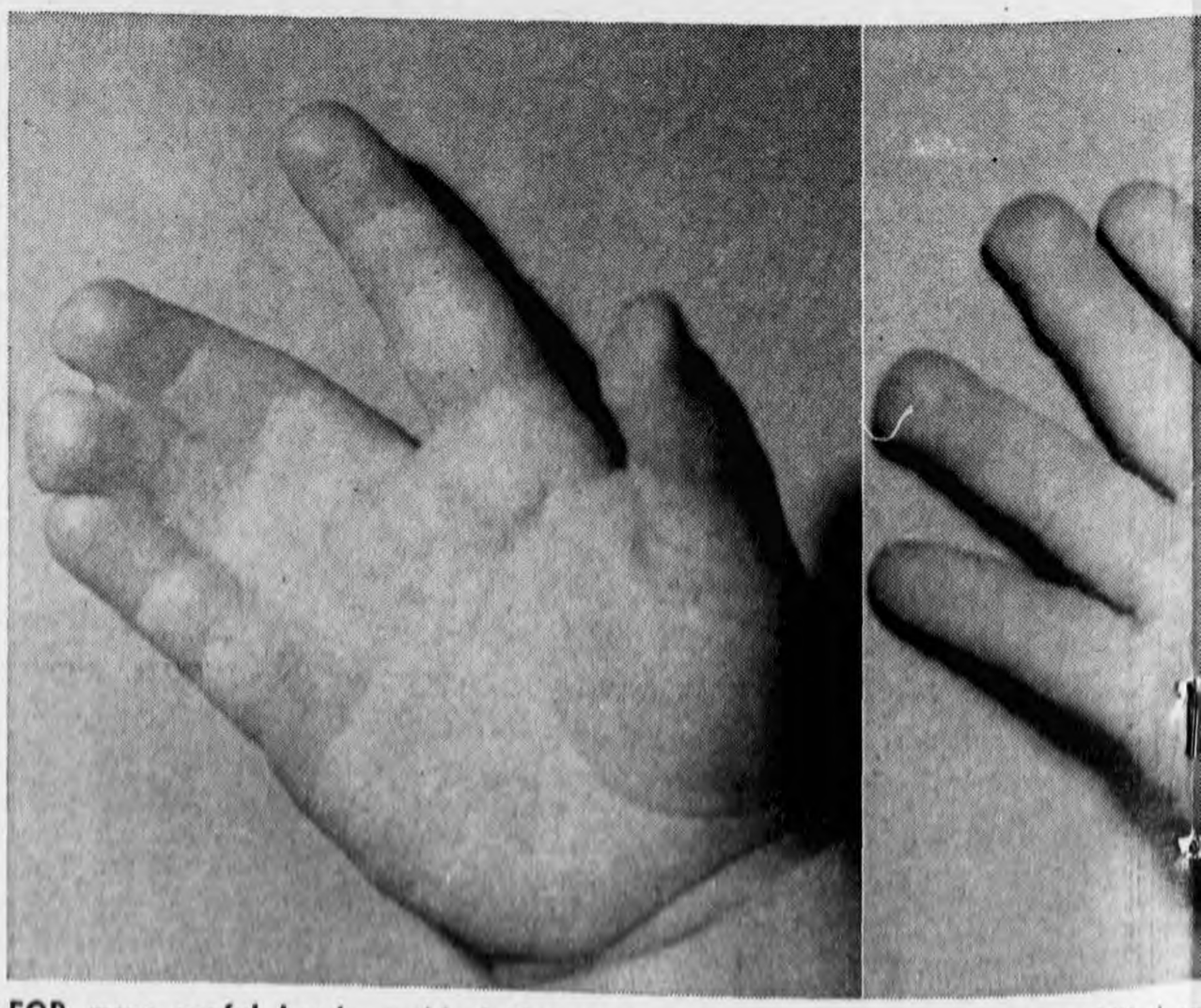
1. The introduction of bacteria-killing antibiotics, which brought the plastic surgeon a means of breaking down the barriers between his practical skill and his theoretical knowledge. For example, success in skin-grafting burned patients had been limited to smaller grafts because of the danger of infection over a large surface. Antibiotics have largely overcome that obstacle by making cleaner fields for skin grafting possible, and thereby increasing successful "takes."

2. The perfection of a new instrument, the dermatome, which allows the surgeon to cut large areas of skin a uniform predetermined thickness. Before this instrument was invented, it was difficult to cut skin a uniform thickness necessary for a successful cosmetic graft. With the dermatone, grafting of larger areas can be undertaken with every hope of success.

3. The perfection of artificial substitutes for missing parts of the body, called prosthesis. Prosthesis has been greatly improved since the war years, and almost complete functional capacity has been restored to men and women who would have been classified as cripples in years gone by.

By 1945 we were a long way from the primitive beginnings of plastic surgery in ancient Egypt and India.

In this article we will focus attention mainly on the reconstructive and cosmetic operations available for infants, children, and young people with congenital or acquired physical defects. Reconstructive surgery rebuilds what has been destroyed by accident or forgotten by nature. Cosmetic surgery rectifies shortcomings that do not affect body functions and makes facial and bodily features meet our present-day standard of acceptance. There is often an overlapping of the two fields.



FOR more useful hands, webbed fingers in babies can be corrected by skilled an

About one child in every eight hundred is born with a cleft lip or palate. It is caused by a failure of any part of the lip or palate to develop and unite during the fetal stage. Cleft lip is commonly called harelip because of its resemblance to the notch in a rabbit's lip. It may range from a tiny nick in the lip to a complete cleft involving the floor of the nostrils.

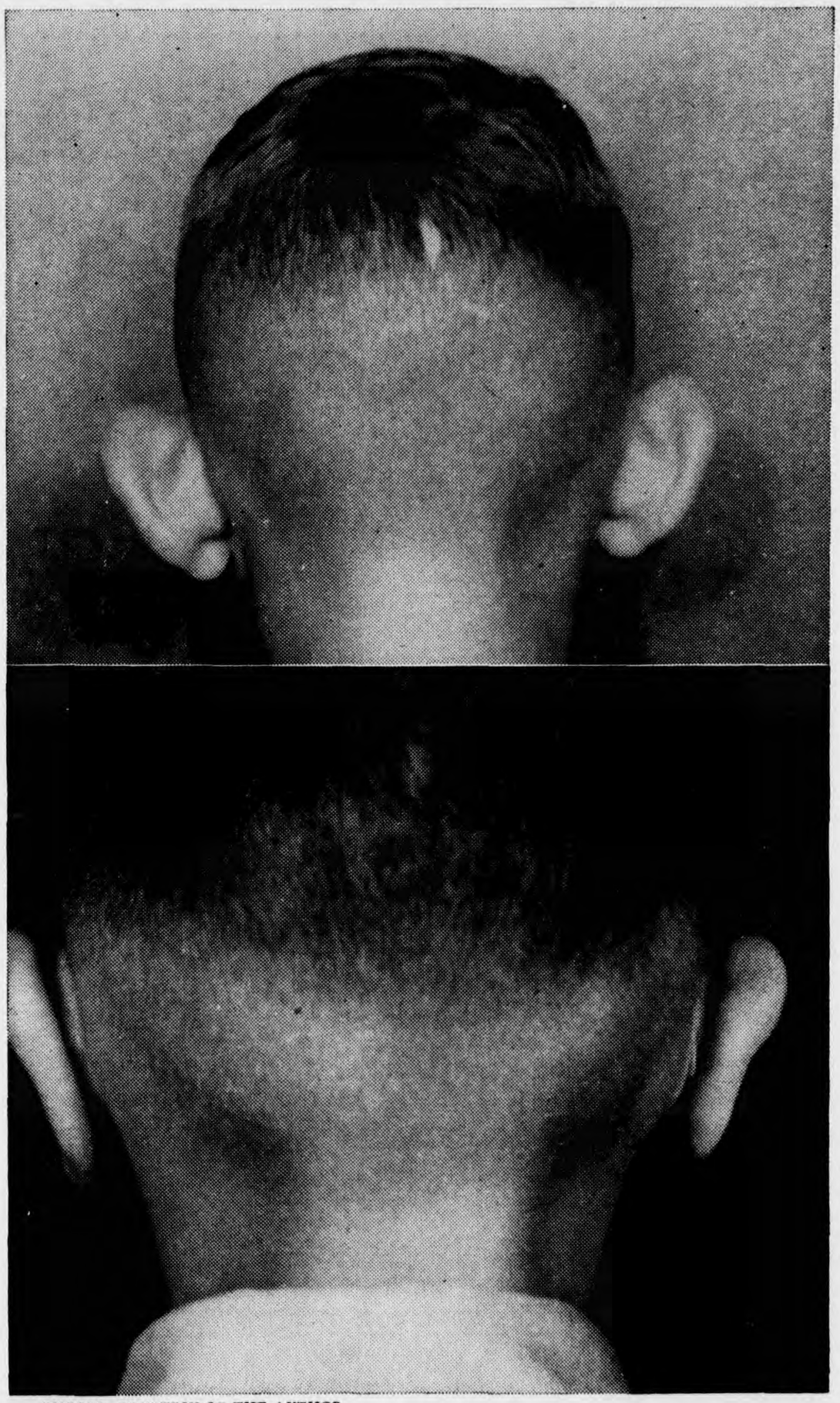
This condition is most common in boy babies; most often on the left side; and in 10 per cent of cases is associated with other deformities. More often there is a family history of some form of cleft in 40 to 50 per cent of cases. In the rest, there is probably at least a subtle tendency in the genetics of both mother and father that results in a baby with this deformity.

The treatment of a cleft lip alone generally requires the least amount of attention so far as rehabilitation is concerned, certainly less than if a cleft palate is also present. Closure is generally undertaken when the baby is three to eight weeks of age, although some surgeons use the baby's weight as their gauge. Later, minor surgical procedures may be necessary for the correction of slight deformities of the lip line or of the nose.

Recently a new technic for closing a cleft lip was devised—a method often so superior to former approaches that many persons in their forties and fifties are having the results of their past operation altered by a newer operation. The essential difference in this method is that the scar line is a stepped line rather than a straight line. The resulting scar does not have a tendency to contract and lift the lip into a notch on the affected side.

Infants born with a cleft palate are generally submitted to surgery when between eighteen and thirty months of age, but this rule, too, may vary according to the particular plastic surgeon. The number of operations necessary for complete correction varies with the length, width, and degree of the cleft. After surgery the plastic surgeon may wish to refer the child to another specialist, such as a speech therapist, to overcome the tendency to a nasal type of speech, and an orthodontist, to over-

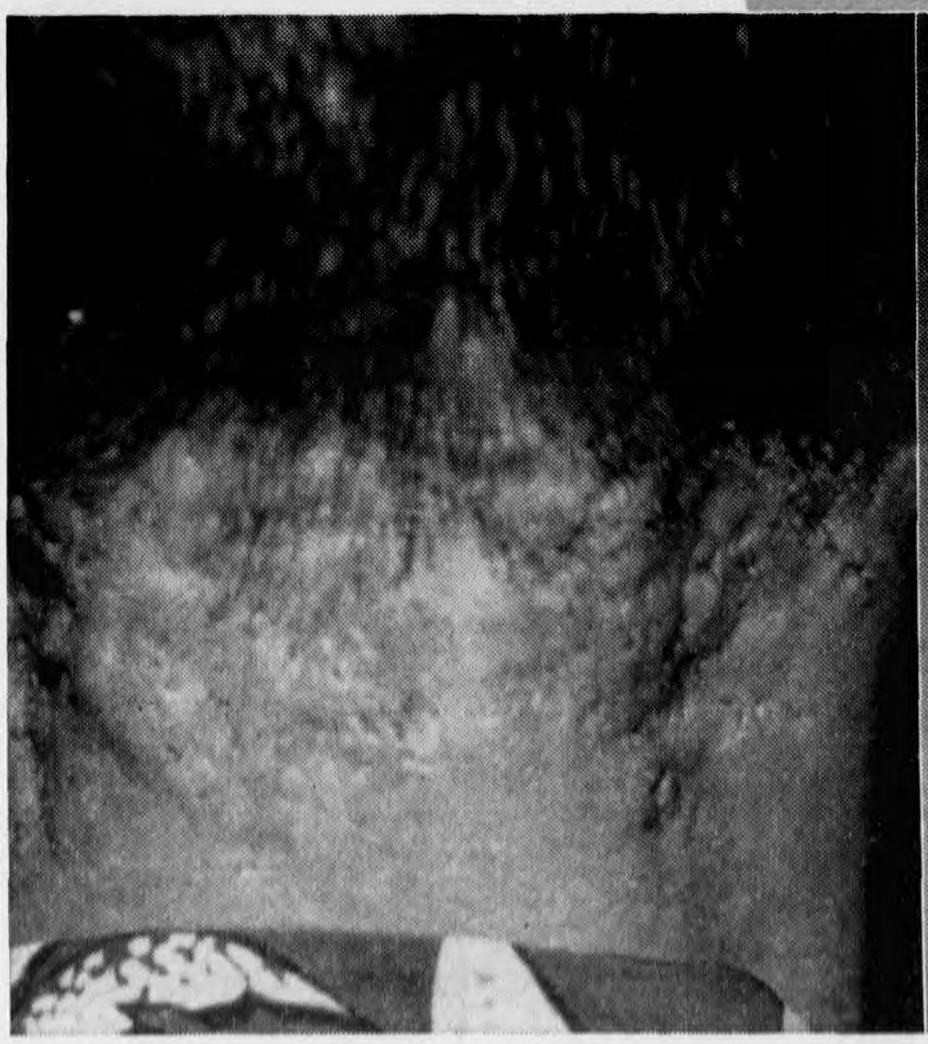
(*Turn to page 34*)

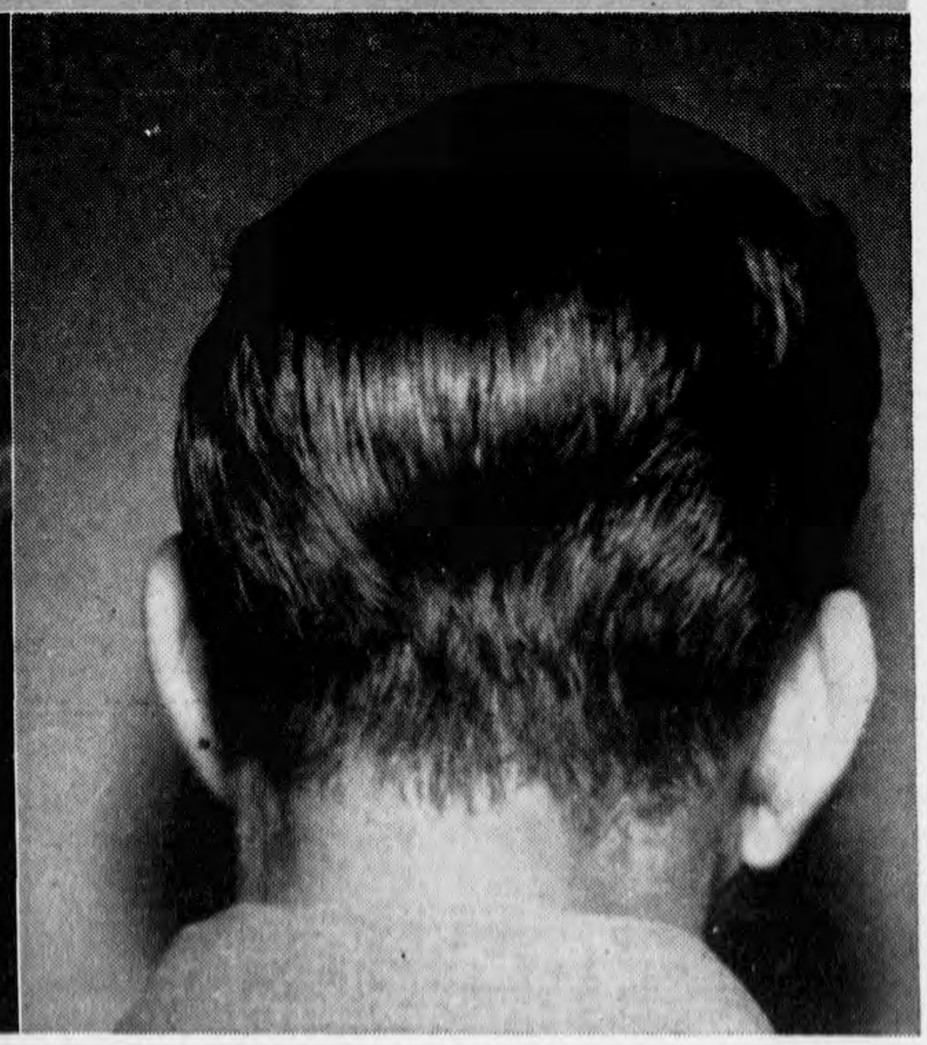


PHOTOS, COURTESY OF THE AUTHOR

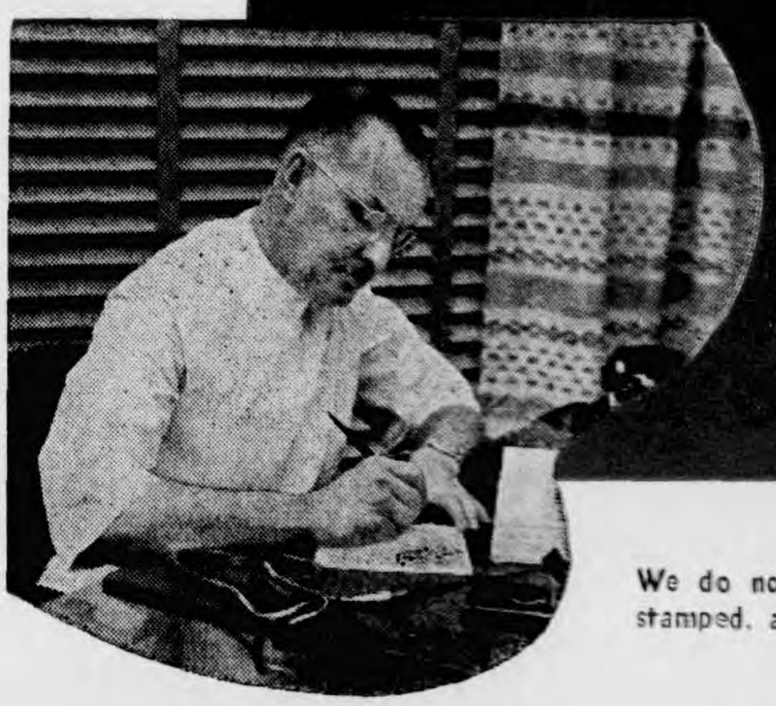
TOO-PROMINENT "butterfly" ears should be corrected before the child goes to school, in order to avoid unpleasant teasing.

carefully planned plastic surgery.





SEVERAL procedures are available to surgeons for smoothing scars of the neck and face. The results are good.



The Family Physician

We do not diagnose or treat disease by mail, but answer general health questions. Enclose stamped, addressed envelope. Address: Family Physician, LIFE & HEALTH, Washington 12, D.C.

Cataract

I have been told that I have a cataract in my right eye. Please advise me what to do for it.

A cataract is a condition that occurs in the lens of the eye in the presence of certain irritations or as age advances. Most cataracts will ultimately fog the vision so that the patient cannot use his affected eye successfully.

At a proper time the lens can be removed surgically and a reasonable degree of vision be retained. It is important that an oculist should watch the development of the cataract so as to advise when the proper time comes for surgery. In some instances a high degree of vision can be retained.

☆ ☆ ☆

Hemorrhoids

All my life I have been troubled with constipation, and since adulthood I have been troubled with hemorrhoids. They are not painful. Is there some exercise that will eventually pull up protruding hemorrhoids? Is there a diet that will tone up the lax muscles?

The simplest course for you may be to have the hemorrhoids removed surgically. If you do not want to undertake this, I would suggest rubbing a little white vaseline on them once or twice daily, and pushing them back into the anal canal. An ice pack or a bag of ice water over the rectal area can be used in treatment.

You should select a diet that will promote normal function of the bowel without straining. Laxatives always aggravate hemorrhoids, and sometimes they may actually be the causative factor. If your muscles generally are weak, exercises and hydrotherapy will assist you in acquiring natural vigor and muscle tone.

My Rocking Chair

By LOGAN G. GRIFFITH

I'm headed right now for the attic,
  Where there's stored away with great care
And covered with dust by the ages
  A lovable old rocking chair.

I'm tired of the chairs I sit in—
  Immobile and stiff as can be—
So the thought of that dear old rocker
  Makes quite an impression on me.

So I'll hunt for a place to set it
  On the floor where a board will creak
While I rock in my he-man rocker
  And enjoy the sound of each squeak.

For I'm through with functional pieces
  Where I slump or I sit up straight,
And I want to lounge in my leisure
  In a chair that's now out of date.

For sittin' and starin' and rockin'
  Seem to drive my troubles away
And bring back to me great composure
  And joy at the end of the day.

So tonight prepare for seclusion
  And arrange my slippers with care,
For today I bring down from the attic
  That lovable old rocking chair.

Diabetes Diet

My physician believes that by keeping on a strict diet I can get along without insulin. The diet list I have offers so little variety that I am hoping there may be other articles of food permissible. Can you suggest anything?

Each person suffering from diabetes is an individual problem, and no fixed diet can be made for all. A pleasing variety of food can be selected for diabetics if study is given to the choice of food.

Your particular choice of food would be determined by the number of calories your physican wants you to have. If you can work out such a diet and hold your weight at a proper level without loss of sugar, you may get along without insulin. Many diabetics can do this quite successfully. If there is a constant sugar loss, insulin should be looked upon as a great blessing and used so that you may have the ultimate benefit to your health.

☆ ☆ ☆

Religion and Safety

Your religious outlook on life is good protection against sudden death on the highway, says Psychologist John J. Conger, who recently headed a University of Colorado team in a study of 264 men at the Denver Lowry Air Force Base.

He found that persons who seldom have driving accidents are those who place importance on religious values. The high-accident group were less conventional, more complex and conflicted, and out of step with the rest of the world.

Train Up a Child

(*Continued from page 17*)

sibilities in the home and elsewhere.

The Christian's conception of the home is a place where parents and children are bound together by love and respect, where God is worshiped and obeyed, where the Bible is read and studied, and where prayer is heard.

Parents must realize their enormous responsibilities as progenitors of human life, as mouthpieces for God so that their children will honor and obey Him. They must daily teach the great lessons of life—cleanliness of body and soul, industry, thrift, system, courtesy, joy, courage, and service.

The ideal home is a place where the children are given a lofty vision of their duty in working for the salvation of their fellow men, and where all look to Jesus as the ideal for human life.

☆ ☆ ☆

The Too Common Cold

(*Continued from page 13*)

want some excuse for taking it without giving their real reasons.

The intelligent use of heat, preferably moist heat, applied to a large part of the body surface or parts of the body to overcome chilliness and congestion will help the circulation better than any drug, and do it in a better-balanced, more controllable way, at the same time being free from the danger of harmful side effects. Hot blanket packs, fomentations, foot and leg baths, and other hydrotherapy measures should be used to replace alcohol and drugs in our treatment of a person with a cold. Milder moist warmth over a longer period of time can be obtained by a variety of heating compresses left on for several hours or overnight. A heating compress to the throat often helps greatly to relieve sore throat and cough. It takes study and practice to use these treatments properly, but the effort is well worth while.

The need for rest, especially early in the course of a cold, cannot be overemphasized. This should include not only rest of muscles but rest of the vital organs as well. Bed rest will automatically reduce the burden on heart and lungs, but rest for the digestive organs can best come by taking a light diet of easily digested food. It is well to take only liquids, especially fruit juices, for a few days.

If bed rest tends to cause constipation, or if constipation is present from any other cause, the large bowel should be emptied daily. Free use of fruit juices may bring about this result, but if not, warm saline enemas gently given can be recommended. No harsh laxative should ever be used.

This may sound like taking a lot of trouble about "just a cold," but the attack can be shortened and serious complications forestalled. The advantage of avoiding the harmful side effects so likely to result from drugs more than justifies the trouble. Use of proper preventive measures, together with the natural type of treatment, will go a long way toward making the too-common cold less common.

Are You Giving Your Wife The Companionship She Craves ?

YOU may be giving your wife all the love and care you are able to. You may have given her a good home, security, many of the conveniences all women yearn for. But is she completely satisfied? *Are you giving her the full companionship of the man she loves?*

Or are you always "too tired" at the end of a day's work? Do you come home from work with only the "left-overs" of your vitality for your wife and family? Is time catching up with you *too fast* . . . at work, at play?

If so, your condition may simply be due to a common vitamin and mineral deficiency in your diet. Yes, *you may be well-fed, but poorly nourished.* The food you eat may just not contain the necessary amounts of vitamins and minerals to keep you healthy and vigorous. You owe it to yourself to find out whether a food supplement such as VITASAFE capsules can restore the youthful feeling you'd like to have. And you can find out at *absolutely no cost* by taking advantage of this sensational free offer!

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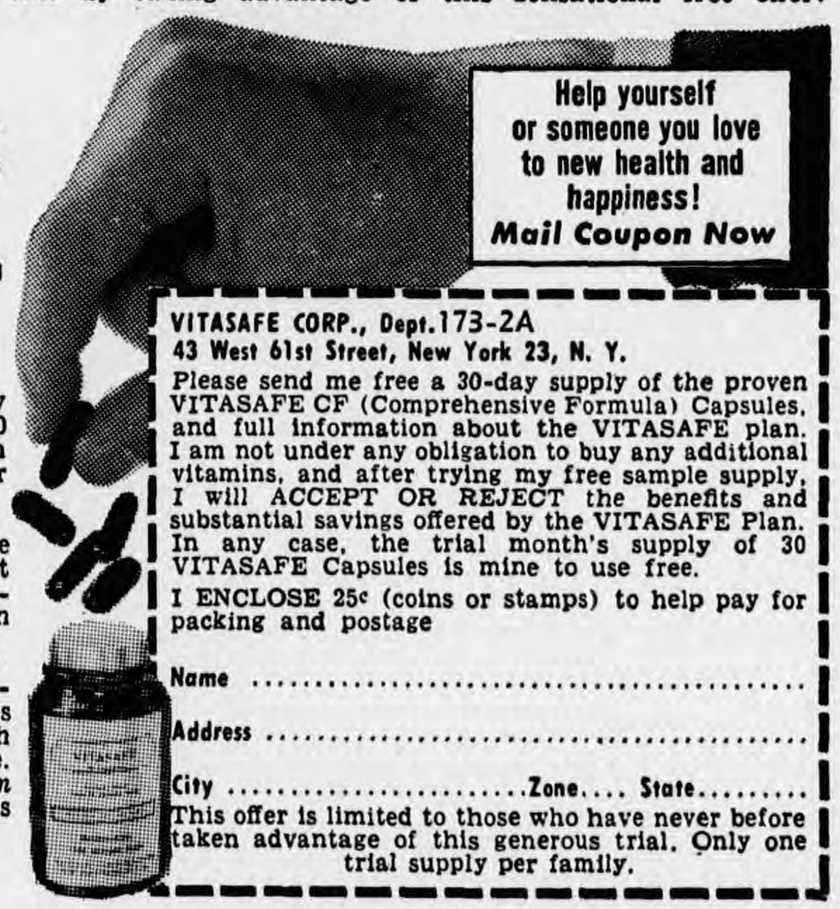

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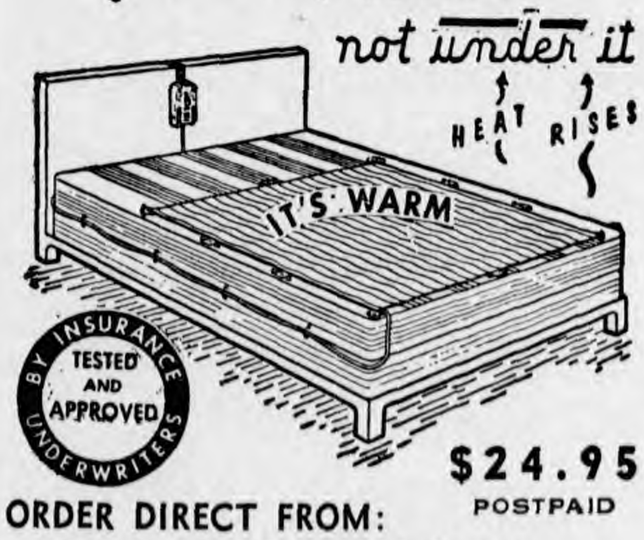

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Mother's Counselor

By BELLE WOOD COMSTOCK, M.D.

Questions for this department should be addressed: Mother's Counselor, LIFE & HEALTH, Washington 12, D.C. Enclose stamped, addressed envelope for reply.

Colds

What is the best thing to do for a baby with a cold? My baby has a tight chest, tight cough, and congested nose. Can a vaporizer containing eucalyptus oil or benzoin be used safely? If so, what hours during the day should it be used? Would you advise the use of a nasal aspirator?

Young babies not overfed are not likely to have colds. However, an extra dose of virus-producing respiratory infection in hovering family members may give any infant such an infection.

Anyone in the household with a cold should keep strictly away from the baby. If it is Mother, she should wear a mask when tending the baby and thoroughly wash her hands before any such ministration. I have seen older children with coughs and runny noses bending lovingly over baby brother or sister!

When baby has developed a cold it is well to weaken his formula (if he is on a bottle) or dilute Mother's milk by giving an ounce or two of water before nursing begins. A baby with a stuffy nose does not nurse well nor have his normal appetite, so nursing should never be overurged. The interval between nursings may be somewhat decreased.

Baby's formula may be made less rich, with some of the fat or sugar removed. In this way he will get his fluids and the important part of his nourishment. Of course this limitation is only a matter of from one to possibly three days. When the child is better, his ordinary feeding habits should be resumed gradually.

During the height of the cold, baby's bath may be increased from once to twice daily. Make it a point to see that the warm water of the bath affects his legs principally, turning them to a pink hue. This indicates an increase in the amount of blood in the legs, and a lessening of the congestive conditions in the respiratory tract.

This kind of bath should be just long enough to produce this effect—perhaps only three to five minutes. This is a good treatment at bedtime, and tends to lessen baby's difficulty in night breathing. It can well be repeated during the night if the nocturnal situation is severe, as it may be for a night or two.

Ventilation should be indirect, the circulation of air between rooms rather than by draft from open windows. A little Mentholatum or camphorated oil applied to the upper lip may be helpful, and a vaporizer in the room is indicated. A little benzoin or eucalyptus oil may be used in the vaporizer, but let it not be too strong or too close. It should mildly affect the entire atmosphere of the room.

If baby's nose becomes clogged, a nasal aspirator may be indicated. But you had better have a doctor at hand.

It must always be remembered that more serious diseases often begin as apparent colds and that with a cold, complications are wont to arise if the infection is severe.

☆ ☆ ☆

Aggressive Children

How do you advise handling children who are too aggressive? I cannot take my children with me when I call on friends because they have too lively an interest in everything about them, and get their hands on everything within reach. They are too much for me, and I need your advice.

Children should understand that handling things is out. Simply tell them that if they cannot act as little ladies and gentlemen they cannot go calling with you.

Make any such call very short, ending it abruptly if necessary. Short, experimental calls may be made at first. Restless children cannot be put to too severe a test in this respect, but they can be trained by your telling them and then making such visits very short indeed and commending them when they seem to be learning their lesson.

☆ ☆ ☆

Stork Beats Polio

Twins were born to a mother in an iron lung respirator during the Massachusetts polio epidemic in 1955. Three lives were saved, thanks to the March of Dimes.

Pilonidal Cysts

(*Continued from page 15*)

the tendency to rubbing in a hairy area. Antibiotics are often necessary before and after surgery to suppress infection.

After surgery for the pilonidal cyst the patient can leave the hospital and return to work between three days and three weeks, depending on the extent and type of operation.

Hygienic toilet habits may prevent the development of a pilonidal cyst. Since one cannot avoid the rubbing caused by walking or sitting, he can observe good hygienic habits by—

1. Thorough daily cleansing with soap.
2. Avoiding a long backward stroke when cleansing the rectal area.
3. Keeping the area as dry as possible.
4. Weight reduction in obese persons.
5. Avoiding sitting on the "tail bone."

Should you acquire such an infection, surgery may become necessary. But you may feel assured that the disease usually is not dangerous.

Human Nature

The average man can stand adversity better than prosperity.—Moody.

Bicycle Accidents

Many bicycle accidents, which cost about 600 American lives yearly—two thirds of them among youngsters five to fourteen years of age—would be eliminated if traffic regulations and safety rules were observed by cyclists, Metropolitan Life Insurance Company statisticians report.

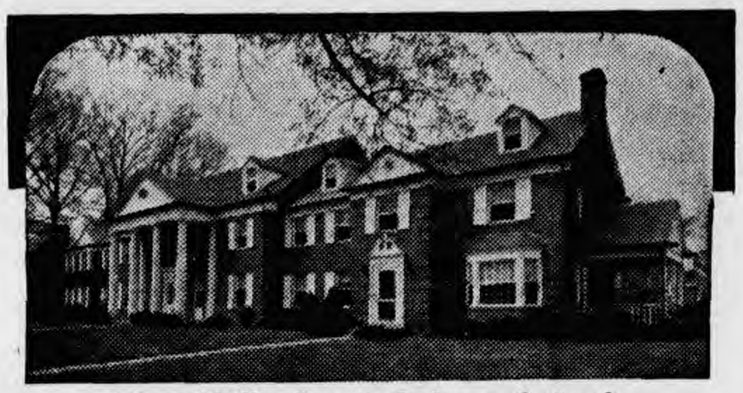
Experience of the insurance company among its industrial policyholders reveals these dangerous actions by cyclists as common factors in bicycle-motor vehicle collisions: swerving into the path of a motor vehicle, coming out of a driveway without exercising caution, entering a traffic lane from behind a parked car, and racing with other cyclists.

Some fatal accidents in the insurance experience were attributed to disregard by the cyclists of stop signs or other safety regulations at street intersections, and to riding in darkness without reflectors or lights. This latter hazard becomes more acute when the hours of daylight are shortened, the statisticians observe.

Loss of control of the bicycle through carrying an extra passenger or through some mechanical defect such as a broken pedal or a loose front wheel also is blamed for fatalities among the policyholders.

Much has been done by the National Safety Council, the Bicycle Institute of America, and schools, traffic authorities, and other groups to make children aware of the hazards that attend cycling and to teach them safe riding habits.

"There is continuing need for parents to stress to their children safe riding practices and the need for observing them," the statisticians comment.



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The Golden Age

This page is dedicated to all our Golden Age readers who are still young at heart. It is designed to improve and encourage active hobbies, good diet, and outdoor exercise.

ESSENTIAL HYPERTENSION

CAN anything be done to control nervousness and high blood pressure without resorting to drugs?

The answer is Yes. Most people are better off without drugs in handling their blood pressure and nervous problems. I spent an evening recently with a retired minister who asked my advice on lowering his blood pressure. He was taking a sedative.

Most people who have high blood pressure or who are nervous should not resort to drugs. Already reports are coming in from some of the newer and popular sedatives, indicating that they are not the unmixed good that some magazine articles would make us believe them to be.

Nervousness, high tension, and high blood pressure often go together, so we will consider them together. Recently I examined a young married man, aged thirty, whose blood pressure was 150/84. This man's father, aged seventy-two, has hardening of the arteries and high blood pressure. One brother has had extensive ulcer surgery (ulcer is considered a nervous disease) and also has high blood pressure. The young man I examined already shows he is heading toward high blood pressure. He sleeps poorly, which at his age is another sign of nervous hypertension. Fortunately he has a chicken ranch, which gives him an outdoor job. This is good for his hypertension, provided the price of eggs does not get too low and feed too high.

The best time to treat high blood pressure is before it begins. Perhaps in the future doctors will check young people against their family background, and if a history of nervousness and hypertension is found, they will give the patient a specially planned program to follow.

Diet is of primary importance. Meat raises pressure more than any other food. Fruits and juices lower it more than any other food, and they furnish much vitamin C and bioflavonoids, or vitamin P, which strengthens the capillary walls. Blood clotting is diminished on a higher-fruit, lower-protein, nonflesh diet. Eggs should be almost entirely eliminated, for the yolks are high in cholesterol, which collects in the arteries and hardens. Neither eggs nor meat is essential to a complete and adequate diet. Mixed whole grains, legumes, nuts, cottage cheese, and milk furnish ample and complete protein. Generally speaking, the protein intake should be low in high blood pressure patients unless there are other physiologic complications.

Start the day with a shower—first warm and then finish with a snappy cold splash. The bathroom should be comfortably warm. Dry with a large Turkish towel and rub the entire body—especially the arms and legs—vigorously until there is a sense of warmth and the skin is pink and glowing. Next pat the skin vigorously with the open hand all over the body. Spend several minutes with this friction and patting procedure. Lastly, massage or rub the body and limbs for several minutes. At the end of this procedure you should feel warm and glowing, with a sense of vigor and well-being. Your nerves, although invigorated, will feel a sense of relaxation.

Unless you take a good walk or work in the garden every day, if your daily job is sedentary, plan to spend five or more minutes in setting-up exercises. Bend and twist as far as you can to the right and then to the left, flexing the muscles tightly and then relaxing them. Finally, lie on your back, raising and lowering both legs about twenty times. This will help you throughout the day and help keep your stomach muscles firm. There are many muscles that we almost never use. Such muscles become a liability instead of an asset. Setting-up exercises bring these muscles into use. Slightly tired muscles help you relax easily and naturally.

If at night you feel "strung up" and nervous after the day's work,

Song

By LOIS M. VAN HOUTEN

I shall spread seed in the winter,
I shall spread cheer in the cold,
And I will attract little juncos
With tail feathers white-striped bold.
There will be, of course, the blithe
blackcap,
The chickadee, right at my door
And maybe a blue jay or nuthatch,
And song sparrows straight from the
north.
I shall spread seed in the winter,
I shall spread cheer in the cold.
When frost binds the thistle and bracken
More of my friends will be bold!

avoid reading anything that is emotionally stimulating or exciting before you retire. The same is true in choosing the television programs you watch. If possible, take a little walk, in easy swinging strides, breathing deeply as you go. Finally, before retiring try lying in a tub of warm water, resting your head and neck on a folded dry Turkish towel, with a cold compress over your face and forehead. Lie in this neutral bath for about twenty minutes, then dry and go to bed with a hot-water bottle or electric pad to your feet. Heat to your feet will draw the blood away from your head, and thus induce natural sleep.

Don't try to sleep. Do as you did as a child. Kneel beside your bed and leave your troubles with the Lord, who keeps your heart beating while you are asleep. Trust in divine power. Turn your problems over to God for the night. He will do better than you at solving them. Trying to sleep will chase sleep away. Don't try; just go to bed and rest.

☆ ☆ ☆

Vaccine for Poultry Disease

One of the worst poultry diseases known to farmers, visceral lymphomatosis, or "big-liver disease," may be on the way out. A chicken-liver vaccine was developed by Dr. B. R. Burmester and associates of the U.S. Regional Poultry Research Laboratory in East Lansing, Michigan. The vaccine has provided baby chicks with a high resistance, or immunity, against this infectious, contagious, and malignant virus, which costs American poultrymen $50,000,000 a year. This disease affects chickens in the same way as cancer affects men.

Immunity in the baby chicks was produced by vaccinating mother hens with a dilute mixture of the virus. Fourteen highly susceptible white leghorns were given the vaccine, and it was found that two thirds of the chicks hatched before their mothers were vaccinated died from the disease. Baby chicks from the same hens hatched after the mother hens were vaccinated fared much better, for only 3 to 13 per cent died of the virus infection.

The immunity seems to pass from mother hen to chick, according to the scientists. Vaccinating the hens causes a buildup of antibodies, which are transmitted through the eggs.

Although this vaccine is not generally available to farmers or poultrymen, it does hold great promise for combating this disease, according to Department of Agriculture scientists.

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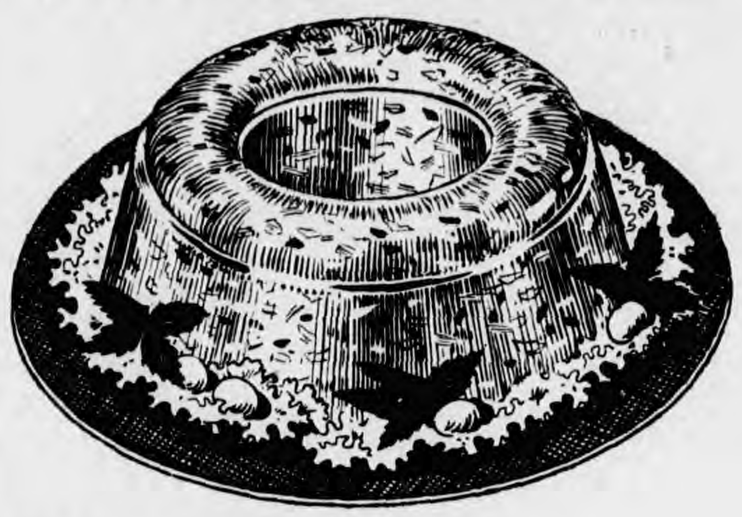

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Wings of Health

By VEDA SUE MARSH, R.N.

TULIP TIME IN THE NETHERLANDS

"IT'S tulip time in the Netherlands, it's tulip time in the Netherlands," sang the Little Jays as they came bounding into the house.

"Mommy, O Mommy, where are you?" they called.

Through the house they ran and out the back door.

"I'm glad you are home," said Mother Munroe. "I need help. We should get these old leaves raked away to give our tulips a chance to grow. Change to your work clothes, and I believe we can get this plot ready before time to get supper."

"It's tulip time at the Munroes', it's tulip time at the Munroes'," sang the twins as they rushed into the house.

Soon they were back with Mother and Tommy. John spaded the ground, being careful not to disturb the bulbs. Joan picked up stones and sticks, and raked the spaded ground. Tommy pushed the garden cart to the places where Joan could use it. Mother was general supervisor. There were frequent conferences as to what flowers should be left and what flowers should be moved.

"Mommy, we have been studying about the Netherlands at school this month," said Joan. "I hope I can visit the Dutch people someday. I think their pretty caps and wooden shoes are very interesting."

"There are three parts to the country," said John. "Near the coast it is called the coastal dunes. The sand there piles up like great snowdrifts. These sand dunes are constantly changing. Some are sixty feet high. Wouldn't it be fun to slide or ski down a sand dune!

"Beyond the dunes are low, flat fields, called polders. Many of these are below sea level. A moss grows there, and as it dries and decays it forms peat. Mommy, you used to have a piece of peat, didn't you?" asked John.

"Yes, I did have a piece about the size of a brick. It was very lightweight and black. It looked heavy, and I'd ask my friends whether they thought they were strong enough to lift it. When they tried to lift the brick it would almost fly to the ceiling. Peat moss is used in several countries where wood is scarce."

"There is a third section of the Netherlands," said Joan, "called the delta uplands. This is where the farms are. The farmers raise rye, wheat, oats, barley, flax, and sugar beets. The grass grows luxuriantly, and the cows are fat and healthy."

"Mother," said John, "there are more than sixteen thousand acres planted to bulbs. Wouldn't it be fine to see them all in blossom! The Dutch people ship many tulip bulbs to America. We have a real Dutch tulip bulb at school. We planted it when we started to study about the Netherlands, and it is beginning to grow. I can hardly wait to see what color it is. I wish we Munroes could buy a few imported Dutch bulbs. I want to save my money to buy a few."

"We could put them in this bed where they would get plenty of sunshine," said Mother.

"Mommy, one of the principal products in the Netherlands is Edam cheese. We saw a picture of two men carrying what they call a cradle for transporting these cheeses. It has a platform about three feet wide and four feet long, curved up on each end so that it will fit on rockers. I suppose that is why they call it a cradle. The rockers extend about two feet beyond the platform, and each one has ropes attached to the ends.

"These round Edam cheeses are about the size of a small cannon ball. The people pile them on this wooden cradle. The first layer is seven cheeses long and six wide. That would make forty-two cheeses. The next row is six by five, or thirty cheeses. The top layer is four by four, or sixteen. That would mean eighty-eight cheeses in one load.

"One man grasps the ropes on the front rockers and another grasps the ropes on the back rockers. Then they lift the cradle and walk along carrying this heavy load of cheeses. It must be very heavy. On market day the men pile the cheeses on a canvas on the ground and sell them to the people who come to market. The Dutch people produce and use many dairy products, such as milk and cheese, as well as eggs. Such foods should give them good teeth and bones," John declared.

"When the men bring the cheese to market, they often wear clean white shirts and freshly ironed white trousers. They are spick and span. The people are very clean. They thoroughly scrub their homes. The women scrub the floors on their hands and knees. Some are known to scrub the sidewalks and fences. They are a hard-working people, and enjoy plain, wholesome food. They exercise a great deal. Where we would think we had to have a truck to transport the cheese, they use a cradle. The men think nothing of carrying such heavy loads."

"Many of the people use bicycles," said Joan, "and everyone knows how to ride. Some take a vacation by cycling through nearby countries. That is a good way to really see the country, for they can easily stop and get acquainted with the people and their customs.

"Some use wooden shoes, which go clickety-clack on their pavements. Wooden shoes are very useful in the country. So much of the country is low and swampy, and the fields are usually wet and boggy. There the wooden shoes are a great help in keeping the feet dry."

"We tried to walk with a pair of wooden shoes we had at school," laughed John. "I don't see how anyone can keep them on. I kept stepping out of them. The boys and girls scrub their wooden shoes often to keep them clean."

"It is time to get supper," said Mother. "How would you like some milk and Edam cheese?"

"Oh, good," said Joan. "I've always wanted to try some, especially since we have been studying about the Netherlands."

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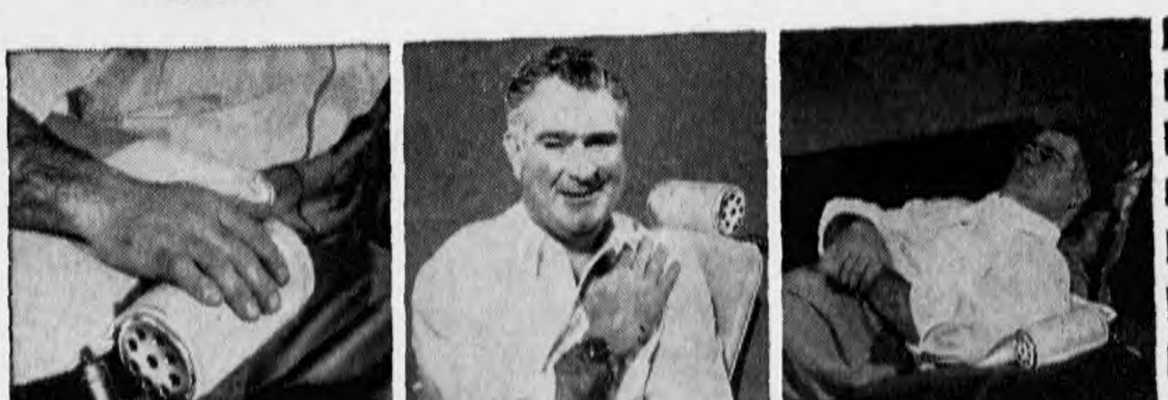

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The Dietitian Says

If you have a question or problem regarding food or diet, address: The Dietitian, LIFE & HEALTH, Washington 12, D.C. Enclose stamped, addressed envelope for reply.

Nutrition Education

What has been done in community nutrition education?

Some years ago an educational campaign was carried out in the schools with the cooperation of the teachers, to improve the eating habits in a certain community. Gardens and the growing of fruit were encouraged. A comparison of a typical school lunch after the campaign with one before the campaign shows the fundamental improvements made.

Before-Campaign Lunch

Stew meat and gravy
Cooked cabbage
White bread (not enriched)
Moon cake
½ pint milk

After-Campaign Lunch

Scrambled eggs
Baked sweet potatoes
Mustard greens
Butter
Cheese
Whole-wheat bread
Apple
½ pint milk

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Eating Rules

Who was Christoph Hufeland?

Back in the 1700's a brilliant German doctor, Christoph Hufeland, wrote a book called *Hufeland's Art of Prolonging Life*. He had ideas that were very advanced for his time. He was sure the following rules would tend to prolong life:

1. Eat slowly.
2. Preserve the teeth. Never eat sugar, and avoid confections.
3. Beware of studying, reading, or straining the head while at the table. Endeavor to have cheerful and merry companions at your table. Laughter is one of the greatest helps to digestion.
4. Do not exercise soon after meals.
5. Never eat so much that you feel you have a stomach.
6. Choose vegetables in large quantity, and limit the amount of meat eaten, especially in warm weather.
7. Eat sparingly at night and not too late before retiring.
8. Use a sufficient amount of liquids, especially water, being careful not to drink until an hour after meals.

The most famous man who lived to an advanced age was Thomas Parr, who was thought to have lived 152 years. This took him through the reign of ten English kings. He is buried in Westminster Abbey. Perhaps you have heard his rules for long life. They are: "Keep your head cool by temperance, your feet warm by exercise; rise early and go soon to bed; if you are inclined to get fat, keep you eyes open and your mouth shut."

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My Cottage

By LUCILLE AGNIEL CALMES

I know a little cottage
  Where everything's just right.
The windows glint with sunshine,
  At dusk the fire burns bright.
The cedar trees around it
  Sway gently in the breeze,
And honeysuckle tangles
  In clusters round the eaves.

The entrance door swings open
  Against the trailing vines,
And beds of mint with roses
  In friendly fragrance twine.
Along the winding driveway
  Wild flowers with briers have grown.
I love that little cottage
  Because it is my own!

Chocolate

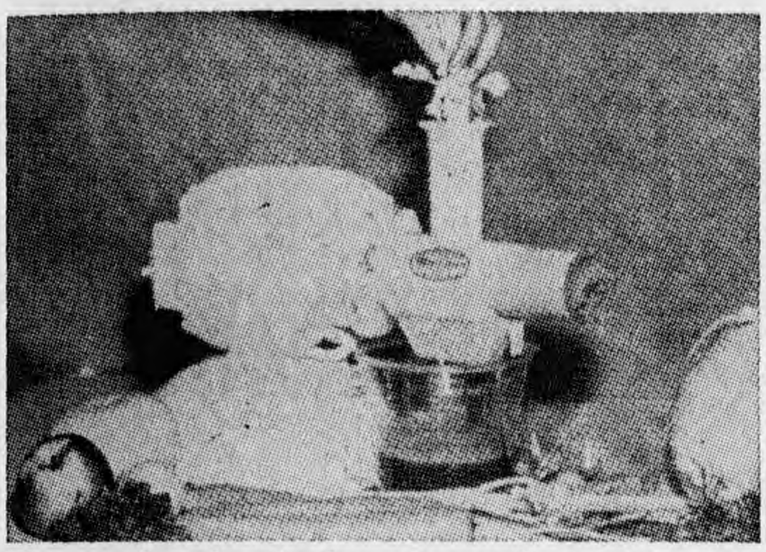
We have heard that chocolate is not very healthful to use. Is this true?

Chocolate and cocoa contain a stimulant similar to that in tea and coffee. Some people have noticed wakefulness from taking cocoa at night. Many adolescents have found that chocolate aggravates skin blemishes.

The home economics department of the University of Wisconsin at Madison found that 4 per cent of cocoa in the ration of a growing rat made the rat grow less well than his brother rats having the same food with no cocoa added. It was found that the cocoa interfered with the rat's ability to use protein and store nitrogen.

It was decided that when for any reason the protein supply is borderline or a person is unable to use an abundance of protein as when on a special low-protein diet, it is wise to avoid large amounts of chocolate in the diet. Many children have become almost addicts to chocolate milk.

Good Health for You and the Entire Family



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Lose Weight

(*Continued from page 14*)

Individual bodies vary. Metabolic rates are different. Some people can eat moderately without gaining weight. Find your body needs for maintenance only.

8. Do Not Subscribe to Reducing Wonders.

A person who attempts to lose weight by using the easy, quick commercial reducing powders is in danger of doing himself bodily harm. He is given drugs that cut out the normal hunger pangs. With normal hunger pangs missing, many people reduce their mealtimes to cigarettes and coffee. They had better not reduce than to use this means, for by such methods they shorten their trip to the grave. Some reducing methods do nothing but supply vitamins and recommend a reduced food intake, not necessarily well-balanced at that. Commercial reducing methods may supply harmful substitutes that are not cures. Anyone with a will can lose weight on his own by following the rules, provided he has the initiative.

Do not take thyroid tablets or other pills a friend may be using. Use thyroid only under a doctor's supervision and at his suggestion.

9. See Your Doctor.

Do not exclude a yearly visit to your private physician. Some obese people may have associated conditions that should be corrected or watched. It is possible that a weight reduction on a diet may be coincidental to some serious hidden disease that helps bring about the loss of weight. Overweight may be the result of some underlying disease that must be corrected before results can be attained. But the chances of your obesity requiring methods other than dieting are few.

Ask your doctor for a listing of what constitutes a well-balanced diet if you do not feel qualified to plan your own foods. Your doctor can also give you a chart to indicate your ideal weight according to height and age.

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Sanitary Bathtub

A "public" bathtub is not safe to use until it has been scrubbed—especially the cracks and crevices.

Use a stiff brush, heavy soapsuds, and hot water to dislodge and flush away any germs that may lurk in hotel or motel tubs.

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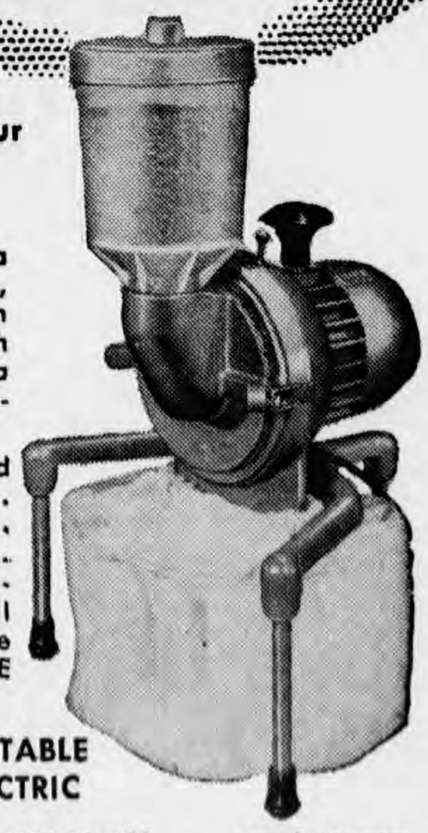

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Homemaker Hints

By CAROLINE EELLS KEELER

When writing, please enclose stamped, addressed envelope for reply. Address: Home Editor, LIFE & HEALTH, Washington 12, D.C.

Spring Marches On. March may be a capricious child, willful sometimes and wild, but she has her charming side—days that overflow with loveliness, and surprises on every side.

Writing Readers. The postman must live a very happy life. Of course there are bad days—rainy, drizzly days—when to deliver mail must not be very thrilling. On the whole he brings a lot of happiness to people, and thereby gets some himself. There are letters that bring joy, excitement, and peace.

I always enjoy letters from the readers of Homemaker Hints. **Beth Bristol**, of Glendale, California, wrote in to share two recipes that she says are delectable. Here they are.

Broiled VP Cutlets

Bread Worthington VP steaks in wheat germ or crumbs mixed with brewers' yeast. Broil in frying pan, add finely chopped onion and oil, and place them in a casserole.

Use the liquid from the can for gravy, adding tomato sauce for interest. Bake in moderate oven for 45 minutes or until browned to your liking.

Eggplant Delight

Parboil 1 whole eggplant chopped or cut in cubes after paring. Add ½ cup chopped pecans, ½ cup bread crumbs, 1 onion grated or chopped fine, and bake. Serve in a little gravy with tomato sauce added just before putting it on the table.

School Lunch Box. When you put up lunches for the school crowd you have to make sandwiches every day. Why not try vegetarian frankfurters? Gluten cutlets make delicious sandwiches. A pretty sandwich, which is equally tasty and nutritious, is made from ground carrots, mayonnaise, and crushed salted peanuts. Cream cheese and orange marmalade are a delicious combination for those who don't mind an occasional sweet sandwich.

Here's hoping apples are more plentiful this year. I don't know when I have appreciated an apple as I did last winter. They seemed like gold nuggets, the price we had to pay, right up here in the fruit belt of New York State. A shiny red apple in the lunch box is a thing of beauty and decidedly a joy during the lunch hour.

A few dried fruits, such as dates, figs, or raisins, satisfy the sweet tooth.

Make some orange bowknot rolls some afternoon. Your family will really go for them, and a child will be delighted to find one in his lunch box.

Nephew's Expectancy

By IRIS ELIZABETH FORD

Aunt Betty's to have a new baby!
I wonder just which it will be—
A wee little curly-head girlie,
Or freckle-faced boy just like me?

Aunt Betty gives me many kisses,
And cookies she takes from the shelf.
I hope she won't think that the baby
Must have most of them for himself!

She gets along splendid without him,
I can't understand all this joy
'Bout having a wee little baby
When she said that I was her boy.

Aunt Betty's to have a new baby!
I wonder just which it will be.
I hope it's a little old girlie,
Because for a boy she's got me!

Using Egg Yolks. When the hens are laying well and we have plenty of eggs, we like to make an occasional angel food cake. Then there are leftover yolks. Whatever shall we do with them?

Cooked egg yolk sieved makes a pleasing garnish for greens. It can be sprinkled over potato salad or on creamed toast. Cooked yolks can be used in croquettes. Beaten yolks mixed with milk can be poured over corn and baked as a custard. They can be used with a bread dressing and baked in pepper cups. And they can always be used for making French toast.

Shoeless Shoebags. You know how many uses are made of the common shoebag with its convenient pockets. One woman uses one in her sewing room for her patterns.

My Florida friend sent a clipping from a newspaper telling of the use of a shoebag while traveling in a car with children. A shoebag fastened over the back of the front seat saved clutter in the car. Into the pockets went games, crackers in cellophane bags, fruit, road maps, crayons—ever so many things. I would put in a wet washcloth in a plastic bag, for there are always sticky fingers that need wiping.

Luncheon Tips. A good lunch for Mother while Dad and the children are away for the day is a bowl of soup—cream of tomato, celery, asparagus, black bean, green pea, vegetarian vegetable—and some toast sticks.

I believe toast is a universally favorite way to serve day-old bread. Toast bread and cut slices in thirds, spread with butter and your favorite cream-cheese combination. I like a faint whisper of Tastex, Vegex, Savorex, or Savita (all have the same meaty flavor) on buttered toast.

Want to make good, tasty Yogurt at home?

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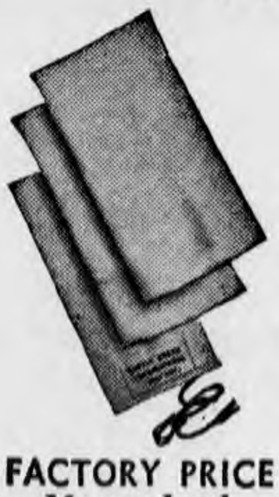

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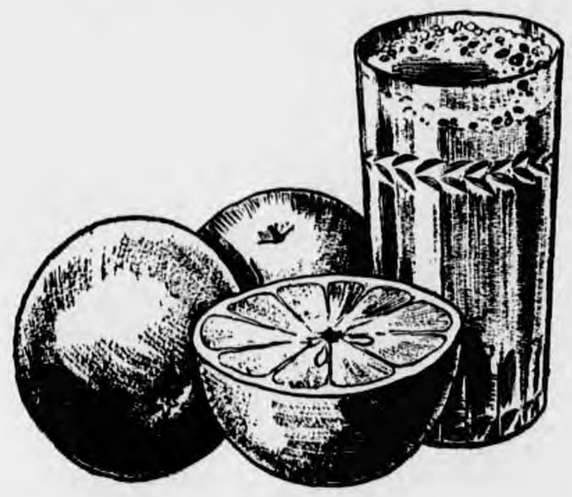
Antiarthritis Program

If you would lessen the aches and pains of arthritis, here is a seven-point program outlined by the Arthritis and Rheumatism Foundation. The regimen is primarily for farmers, who are attacked by the pains of arthritis more than the average person in other lines of work, but it is equally applicable to everyone.

1. Do not overdo more than is absolutely necessary.
2. Get sufficient rest.
3. Stop for a breather several times daily.
4. Prevent wear and tear on muscles by warming up before a day of



strenuous activity. Simple setting-up exercises are good.
5. Start the day with the lightest chores.
6. Try to overcome worries and unpleasant situations.
7. Do not forget regular medical checkups.

In a study the Arthritis and Rheumatism Foundation discovered that 23 per cent, almost a fourth, of American farmers have arthritis. Just why arthritis hits farmers is not known, but exposure to the elements may be a factor. Hard physical labor over the years without letup and very little relaxation may be involved. Fatigue and worry are two of the greatest causes of arthritis.

Although no cure for arthritis is known, some medicines do help to alleviate the sufferer's symptoms. In 70 per cent of the cases of rheumatoid arthritis, the most crippling form of the disease, deformity can be prevented if treatment is begun early.

Not every ache and pain is arthritis, but you should make certain whether you have arthritis or some other disease if you have any of the following symptoms:

1. Persistent morning stiffness.
2. Pain and swelling of the joints.
3. Persistent muscle aches and pains.
4. Unexplained weight loss.
5. Fever and weakness.
6. Undue warmth of a painful joint.

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What's Getting Under Your Skin?

(*Continued from page 11*)

the power to resist many types of infection, even from the most virulent germs. This is particularly true if the skin is moderately dry and flexible. If the skin is constantly damp, it loses its power to destroy germs. Fungus spores from the air settle and grow on damp skin, and they open the way for more dangerous germs.

The sweat glands are under the control of the sympathetic nervous system. That is why we tend to perspire a lot more when we are tense and nervous. The resulting damp skin provides a perfect environment for fungus infection. This condition often causes an intense itching of the skin, and the patient may be forced to scratch himself even in his sleep. When he cuts the skin with his fingernails, germs find their way down into the deeper layers. Many small abscesses or pustules may result, and may become inflamed and tender. Such conditions are usually worse in the warmer months of the year.

The skin is a remarkable organ. It covers almost every part of the body, and is our point of contact with the world. When the skin is healthy it has the power to eliminate many types of germs and other organisms within a few minutes.

To keep the skin healthy we must give it proper care at all times. Strong soaps are not good for the skin at any time. Such chemicals may remove the tough outer cells that protect the deeper layers of the skin, down where the delicate nerve endings and the myriads of microscopic blood vessels are located.

These tiny vessels bring nourishment to the skin and help remove waste tissues from the body through the sweat glands. These tiny blood vessels must carry out another important function. It is their responsibility to help keep the body cool and protect it from becoming overheated. In this they are aided by the sweat glands.

When the internal organs become overheated, the brain automatically directs the flow of blood from the deeper tissues out to the skin, where it can be cooled off. The outpouring of moisture in the form of perspiration carries excess heat out to the surface of the skin, where it evaporates, carrying with it more than five hundred calories of heat for every gram of water turned to vapor. This wonderful protective mechanism of the body assures us a constant temperature within our bodies, whether the air outside is stifling hot or freezing cold.

The skin reacts quickly to emotions. When we are paid a compliment, most of us blush freely. When we are too warm our skin will become red. Such extra color shows when the small blood vessels in the skin become suddenly dilated, and carry more blood than usual. The reverse may happen when we are gripped by fear, when the skin will become blanched. It will be noted that these different skin reactions are due to strong nervous impulses, most of which are beyond our control. That is why nervous patients are often afflicted with skin diseases. Many different medications are prescribed for these conditions, and some of them are of real benefit to the patient. But there are times when all treatment will fail unless the patient is willing to face up to his problems and make some attempt to solve them.

To recognize the underlying cause of the trouble is just as important for the rest of the family as for the patient. Only when the family understands can a proper adjustment be made. Family friction may not always be the cause of irritating skin conditions, but it will often prolong the disability and make life miserable for the patient and the other members of the household. It is important for the patient with neurodermatitis to tell the doctor what is "getting under his skin." Otherwise there may be no cure.

In Scotland there is a famous bridge across the Firth of Forth not far from Edinburgh. When the engineers were building this giant structure, they appointed a day when the great steel girders in the center were to be placed in position and the mighty bridge was to be finished. A celebration was planned. A great crowd was present when the giant

Certainty

By JANE MERCHANT

So many delights have palled
That I have known,
So much that I have loved
I have outgrown—
How comforting to know,
Lest I should nod,
There is no chance of my
Outgrowing God.

cranes picked up the steel girders and lifted them into place. But the girders were too short! The day was cold, and the great steel spans had contracted just enough to prevent the rivets from fitting properly together.

So the engineers got busy and built two huge fires, one under each end of the bridge, with the hope that the heat would allow the metal spans to stretch far enough to finish the job But still the girders were too short. After waiting all day, the crowd went home disappointed. The next day was fair and warm, and the sun was shining brightly. Once more the engineers brought the central span into place, and this time the girders fitted perfectly. The job was finished without trouble. All that was needed was the gentle warmth of sun over the whole span, and all was well.

So it is with life. Often the jagged pieces of our personalities do not fit together as they should. We struggle and fuss and fume. We fail in spite of all we can do. The cold blasts of family criticism and the icy chill of sarcasm rob us of our chance to do our best in life. Something is continually "getting under our skin." What we need and desire most is to be accepted and appreciated by those who are nearest to us by the ties of blood. We can do this only if we are truly willing to lay aside our petty differences and our own selfish point of view. Robert Burns wrote truly:

> Oh wad some power the giftie gie us
> To see oursels as others see us!

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Plastic Surgery for Childhood Defects

(*Continued from page 19*)

come the inevitable misfitting of the upper and lower teeth. An important part of the child's rehabilitation is a stable home life with loving care and the sense of security it brings.

Few families escape the period of adolescence when one or more of their members passes through the unhappiness of severe acne. With careful diet and a few years of patience, many cases gradually recede and leave no visible reminder. But in more severe cases acne leaves a record of scars. The people who retain severe scars are the candidates for plastic surgery.

The most promising innovation for treating severely pitted acne was developed during the last war, when it was found that by sandpapering the involved areas the finally healed area was greatly improved in appearance. Since then many modifications of this technic have been developed, varying from sandpaper to small stainless steel brushes revolving at high speed. Whatever the technic, the object is the same—to remove the scarred outer layers of skin and allow them to heal from below. The cases achieving the best results are those in which pits have not penetrated the entire depth of the skin. A skin heavily pocked with shallow pits can be treated much more successfully than one with fewer pits extending far into the delicate skin layers.

Often these scars are most evident on the back of the neck. In girls the hair can be worn long enough to cover them, but in boys it makes a condition that is best erased by surgery or a combination of methods available to the plastic surgeon.

Any layman pondering the problem of webbed fingers or toes, called syndactylism, may conclude that the simplest remedy would be simply to split the fused fingers apart with surgical scissors. In the earlier days that method was used, until postoperative results proved that the patient was often worse off functionally than he was before surgery was undertaken.

Nowadays this operation is carefully planned so that the separation is not done in a straight line. Instead, the scar is designed to take a kind of zigzag course—much like the line made with pinking shears—so that the projections on one border of the incision, say along the back of the finger, can be carefully fitted into the notches on the palmar border. The result is a scar that does not contract and deform the fingers. It leaves them, instead, with considerable flexibility.

Once the child with lop ears is of school age, he becomes the object of ridicule and cruel nicknames. It is wise that the child with protruding ears be operated on before entering school, some time before five years of age, so that he can avoid any deep emotional disturbance resulting from his abnormality.

The correction of this particular anomaly is a well-established procedure with very satisfying results. It requires the careful removal of excess cartilage through an incision behind the ears, then a molding of the remaining cartilage so that the ears may be repositioned closer to the head.

Even in children, personal appearance can be powerful in personality development. One adolescent patient I recall had suffered years of playful ridicule from his playmates because of his protruding ears. At recess periods his schoolmates made his life miserable. His school authorities brought him to me to see whether his ears could be placed in a more normal position, and I found him to be a natural candidate for the operation. In the months since surgery he has been transformed into a completely different person. He is no longer shy and uninterested in his appearance; instead, he is confident, and meticulous in his personal grooming.

Most congenital anomalies, whether they are lop ears, webbed fingers, or cleft lips and palates, should be surgically corrected before school age. These conditions are not so important when a child lives in a neighborhood where his companions have long since grown used to them, but when he is thrust into the new surroundings of school, his new associates are not likely to be tolerant of his handicap.

It is the aim of the plastic surgeon to make it possible for all children to grow up as nearly physically perfect as possible. This can be done only if parents cooperate in giving these abnormalities early recognition, appreciating their significance to the child, and bringing him under medical attention as early as possible.

Be sure to read next month's LIFE AND HEALTH article on plastic surgery by Dr. Hansen—"Adjustments for Adults."

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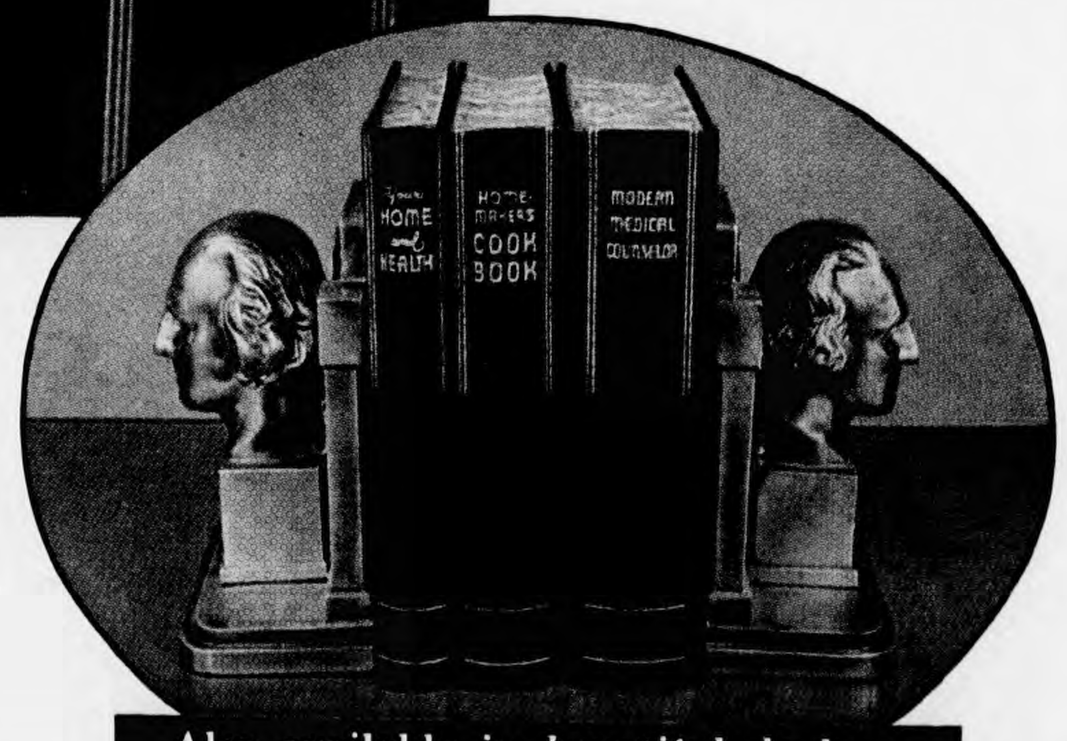

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Arthritis

Since the beginning of recorded history, millions have walked in pain; now at last philanthropists and scientists organize war against the No. 1 Crippler.

EVELYN SEELEY

ARTHRITIS IS THE OLDEST DISEASE known to man—and has been the most neglected. There is nothing dramatic about it. It does not kill, as cancer does. It does not strike you down suddenly, as heart disease. It does not cripple as quickly as infantile paralysis.

It simply stiffens the joints and weakens the muscles of your hands and arms slowly so you cannot work or play, stiffens your legs so you walk in pain or not at all. It keeps you awake night after night turning and tossing in vain to find a position that is comfortable. It is a gnawing, nerve wracking suffering, a slow crippler that sneaks up on you and cuts you off from active life.

But people who walk in pain, who move each joint with agony, who cannot sleep at night, who are cut off from the normal pursuit of a living have somehow not been considered news. The compelling facts have not been told.

Now, at last, the Arthritis and Rheumatism Foundation, a group of distinguished philanthropists, medical men, scientists, and publicists, will put the case before the public.

It will ask the public to finance a national program of research to try to find out what causes and what can cure this widespread agony, and for a countrywide program by hundreds of local foundation chapters for more thorough diagnosis and better care and more hospital beds. Beside pointing out the immediate need for facilities to make more patients comfortable, and the great need for bringing younger men into research in this field, they also seek to educate the public and the medical profession as to the fundamental problems so neither doctors nor patients will waste time on false and often dangerous "cures."

"Conquer the Crippler" is their slogan. This is their story:

Arthritis (and other rheumatic disease) is the No. 1 Crippler. More people suffer from rheumatism than the total number of cases of tuberculosis, diabetes, cancer, and heart disease all put together.

It hits any age—many children, a tragically large group of people in their thirties, at their best and most productive. And it is estimated that 97 percent of all people who live past middle age develop some changes of the bones or joints characteristic of arthritis, though they may not be labeled actual arthritic cases.

More than 7,000,000 persons suffer from some form of rheumatic disease, one in every 20. It has completely disabled 147,000 living Americans, partially disabled 800,000, and subjected more than 6,000,000 to chronic or recurrent pain.

Because of rheumatism and arthritis, more than 97,000,000 workdays are lost each year (equal to an army of 320,000 unemployed persons, otherwise employable). It hits the low income families hardest; more than half of those lost work days happen to families whose income is less than $1,000 a year.

THAT IS THE STORY, AND THIS IS ITS ending, in the doctors' words: "We don't know what causes it and we don't know how to cure it."

There is no known cure, although certain specific treatments—gold injections for instance—have been found to change the course of the disease and to arrest it sometimes for a number of years. If diagnosed at a very early stage, doctors believe many cases could be cured or that at least crippling deformity and incapacitation could be prevented. But few cases, in this neglected area where only a comparatively few doctors understand the diagnosis, are discovered early. And only one patient in every three goes to a doctor.

To find the answer, even to begin to find it, there is at present only $200,000 for research. And to ease the nationwide suffering there are only 200 hospital beds—as compared for instance, with $100,000,000 and 100,000 beds for tuberculosis.

THE ARTHRITIS AND RHEUMATISM Foundation is out to change this shocking neglect. Its campaign, launched November 15, seeks to raise an initial $2,000,000 in 1948, to be spent for research, treatment, education. It plans a national program of research, bringing more young men into the field, providing fellowships, and a countrywide organization of local foundation chapters, with a program of better diagnosis and treatment. Floyd B. Odlum, Indio, California, president of the Atlas Corporation, is chairman of the foundation board; Dr. W. Paul Holbrook, Tucson, Arizona, is the board's president.

In terms of people, the story goes like this:

Patients suffering from various types of the disease were waiting in the corridor at the arthritis clinic I was permitted to visit. (This clinic, established twenty-five years ago, is one of the oldest in the country; held twice a week in the afternoon, it treats 60 to 80 patients each day.) Several children sat with their mothers. The children's faces—unlike those of older patients—did not yet show the lines of pain, but their mothers' faces registered bleak discouragement, and they

✦

—Evelyn Seeley's last article for* Survey Graphic *was "Adoptions: Maryland's Better Way," May 1948. A former newspaper woman, she now devotes her time to free lance writing and her home in Nyack, N. Y.

seated only seven women in the House of Representatives, and but two in the Senate. Women's share in community politics is negligible. How many are selectmen, or aldermen of towns and cities; how many are on boards of education? A vast majority of our teachers are women, but they have next to no control over our educational systems. How many women's colleges teach practical politics, encouraging an ambitious girl to adopt politics for a career?

IN COMPARING WITH OTHER COUNTRIES the American woman's record is pitiful. The brand new state of India has seven times as many women in the national legislative bodies as we have; they have one Minister of the government, and I believe, two ambassadors. The Communist nations are placing women in vital positions. Is not that Balkan virago, Anna Pauker, one of the most forceful leaders in eastern Europe?

Relatively few women have executive positions—in offices, factories, or labor unions. They are underpaid in all but wartime jobs in comparison with men. And yet over one quarter of the entire labor force in America is made up of women. Millions have special skills and capacities so that they have taken over entire types of activities, and I am not talking of teaching or nursing.

Although men assemble motor cars and generators, the women put together the minute devices that go into the hundreds of different kinds of instruments vital for our electronic, and chemical civilization. A thousand separate wires and parts go into the cheapest television sets; this industrial product that will soon be turned out by the millions has been taken over by women slaves of the machine. Women are the most satisfactory assistants in laboratories; we know what they are worth in offices, big and small, all over the country, as bookkeepers, secretaries, stenographers, typists, file clerks, and the Lord knows what else. The average office is a beehive filled with women, ruled by a few men. The telephone switchboards belong to women—in fact all of the nation's work that is monotonous and repetitive and that does not require hard physical labor.

In all these activities they are abler than men, and in others where both sexes work together they are more efficient, less bored by montony, less given to coming in Monday morning with a hangover. I say, let these women who have special skills simply because they are women, demand higher wages. If they will organize into women's unions and strike for their rights, they will get them.

Then there is marriage. That has become the worst of all the fantasies in which women live. A girl today has only a little better than a fifty-fifty chance of staying married to the same man. If she has two or three children, they will have left the home for jobs or for matrimony when she is still in her forties. It is no longer true that motherhood is a woman's whole life, for she is destined to live (on the average) to sixty and a half years old, and if she has been fed enough grape juice and milk by her parents she has a fair chance for seventy-five or eighty. A healthy woman of forty-five whose children have left her—with an empty house and an aging husband to solace her—may have ahead of her over thirty years of life. What will she do with them if she follows today's pattern?

And now we come to the "career" woman, who has of late been so belabored by psychiatrists and by the male writer who prefers his women dependent and submissive (but who is quite apt to marry a girl who can add to the family income by office work, get back to cook his dinner, and maybe spend the evenings retyping his manuscripts.) The only thing wrong with the career woman is that she is apt to be successful, and thus live a fuller and a more entertaining life than the family or office drudge. She is ambitious. Why not? Are not men supposed to have ambition? She also has a wide selection of attractive, intelligent, and perhaps amorous males to pick from. She is envied, therefore, and she is disliked; she is able to compete on the same terms with men, and she must be demoted and put into her proper place. What is virtue in a man has become a crime in a woman.

But somehow in the course of time, unless a third World War should make all writing about the progress of humanity useless, these inequalities and absurdities must, and I believe will, be modified. The times will demand new outlooks from both men and women. Marriage must be entered into more deliberately and more wisely. Let Eros shoot his badly aimed little arrows at youths and maidens, but in the name of sanity, we must stop regarding the first embrace as a proper guide to fifty years of married life.

Girls must be trained for special work or for careers, certainly for activities and pursuits that will fill their lives to their dying day. Women must be rescued from industrial slavery. Their brains are as good as men's, their endurance greater; they must use their advantages for the protection of their families and for life-long security.

It is useless to point out that there must be millions of contented and happy married women who have found in their children and their homes complete satisfaction for their demands on life. For there are corresponding millions of women who have *not*. Doubtless, there are also millions of women workers who are dissatisfied with their jobs, thereby acquiring the publicized neuroses.

But neither wife nor worker can now turn back the clock. It is actually a social revolution that is at the base of all this discussion of the "woman question."

There will be further war between the sexes, and women will lose it—unless they are willing to seize the power lieing within their grasp. True, it is uncomfortable for women to meet the hostility of men who distrust women in politics; difficult to ask forcefully for the rewards of position and honor given to successful men, or even suggest equal wages for equal work. It is always less embarrassing for women to lose a battle than to win it; to surrender gracefully is presumed to be womanly endowment.

But when what Dr. Banay calls "the tide of feminine liberation" comes to the flood and when women decide that these obligations toward themselves are demands the future must make on them, there may finally result for this partnership an equilibrium between men and women such as we have not known since the days of Victoria, when for a time peace was maintained, not only between nations but between the sexes.

smiled only when their children looked at them. The elderly patients were more numerous, but the majority appeared young-to-middle-aged, from twenty to forty.

Some were in wheelchairs, some held their arms stiffly on their laps. Some that walked did so as if they were on stilts, lifting one leg at a time with conscious misery. Others pushed their feet before them. As they waited, they twisted and turned in their chairs trying to get comfortable. These were the lucky patients, the doctor explained, who can still get out of bed.

One woman said brightly, "I've felt better for two days!" Her neighbor with a discouraged sigh assured her, "Well, I hope you have better luck than I did. I felt better for a while, and then I felt worse than ever."

These were the veteran arthritics, living with the disease; some of the younger ones sat alone, not speaking to anyone, unwilling—you felt—to be included among the chronics.

"These people are desperate," said the doctor. "They suffer terribly and practically endlessly. They get a little better, then the pain comes back, often worse. Sometimes the disease seems dormant for a time—even for a few years, and they think they are cured; then it returns and grows worse. Some cases burn out; they're left with their deformities, incapacitated, but with no more pain. Most of them just go on suffering."

This clinic doctor, a slight and rather young man, spoke quickly and quietly and moved from his desk to the telephone and from interviews to injections with a quiet stride. He worked in his street clothes, not having taken time to put on a white gown. You felt he was actively, physically attacking this enemy.

"The worst thing about arthritis," he went on, "is that it strikes down so many people right at their prime. We don't know why. We know so little about it that only a few of us are willing to work in this field—it's too frustrating, seeing patients suffer and knowing how little you can help them."

The doctors know, he said, that arthritis does not come from infection from without, nor from any focal infection within the body, but from some mysterious thing that goes wrong inside the system. Climate, occupation, working conditions have nothing to do with it—beyond their effect on the patient's general health. They know that arthritis disappears during pregnancy and with certain types of jaundice, to return again, but they don't know why. They know that certain specific treatments can change the course of the disease, can arrest or delay or interrupt its progress, but no treatment yet discovered can surely end it.

NO DOCTOR WITH A CONSCIENCE WILL lead his patients to think he knows the answer. This clinic doctor, following a press report of a medical paper claiming certain success from the new use of a certain drug, got 379 letters in a single day, asking for the treatment. Another day, following a newspaper report of an allegedly helpful diet, he got seventy-five telephone calls.

"It hits you at any age," he said. "In any occupation, any climate. Sometimes it works slowly, sometimes fast. You can't tell."

His first patient that I watched was a young woman of twenty-five, a "beginning" case. She had had the disease three months. Her hand felt warm, moist, and flabby; the knuckles of her fingers were swollen, her wrist weak and stiffening. She is worried about her work; she has been able to change from typing to something else in the office, but what will happen when she can no longer handle files and pencil?

Next came an advanced case, an elderly man who has suffered for more than thirty years. His arms and hands are grotesquely deformed. His joints are enormous, knobby, bulbous, the muscles between wasted away almost to the bone. He has gone through the mill with every type of treatment known but the disease has continued on its way. He has not been able to use his arms for years.

Here was a new, quickly advancing case, a man of forty-five who has had the disease for six months only but is already incapacitated. He is in constant pain, except for transitory relief from aspirin (he takes twelve a day); he tosses all night long, can't straighten out his limbs or body; there is no way he can stand, sit or lie that makes him comfortable. "I can hardly navigate at all," he said. "When I leave here I make it to a taxi and just fall in." He was a dockworker and thought the dampness of the dock might have caused his illness, but the doctor says it had nothing to do with it. Schoolteachers, librarians, cooks are as vulnerable.

Next case, a woman in her thirties,

(Continued on page 519)

Hospitalized and outpatients both use the therapeutic pool at the Hospital for Special Surgery, New York. Water temperature is kept at 101 degrees, and treatment is given by a physiotherapist in the pool.

Sinews for Freedom

FARNSWORTH CROWDER

In "Education in a Divided World,"* James Bryant Conant has written a wise, tightly-reasoned little book; without being an alarmist's trumpet call, it is nevertheless a call to arms. It is a kind of briefing, by Harvard's president of the educational corps being assigned to duty in the struggles of a divided world. "Our fitness to survive the Russian challenge," he says, "depends primarily on a vigorous demonstration of the vitality of our own beliefs in democracy and freedom . . . . We must look increasingly to our free schools for an answer to [totalitarianism] . . . . They are the sinews of our society."

One asks—but is there time for the schools, disjointed, many-headed, and temperamentally cautious, to do anything immediately effective in smothering the already lighted fuse to an already overloaded powder magazine? Taking to an admittedly frail limb, Conant dares to argue that the present armed truce can be prolonged to the point of stalemate, that Russian aggression will be ideological and conspiratorial before it becomes overtly military, and that a long, uneasy peace, lasting perhaps for decades, is not impossible. This period will be democracy's chance, the schools' great opportunity.

One asks, again—but are the schools, themselves so largely hierarchical in organization, so autocratic in operation, so deficient in providing democratic equality of opporuntity, fit agencies for the indoctrination of democratic ideals? Conant does not explicitly raise this question, but much of the best that he has to say—and it is some of the best that anybody has said—is addressed to this very problem of making the schools fit for their assignment in the struggle for survival.

But is our democratic culture itself fit to survive—morally fit, that is? Conant answers in his first pages with a vigorous *It is!* and proceeds to an exposition of American democracy, its preconceptions, political creed, its ideals, dreams, and goals. True enough, this exposition is categorical rather than critical or defensive.

Thus, for example, while emphasizing the desirability of a competitive economic system, of a high degree of social mobility, of rapidly changing social patterns, of a "wide diversity . . . in all sorts of matters," he does not consider that the sociologist's phenomena of social disorganization and the psychiatrist's phenomena of industrial disintegration, hostility, frustration and neuroticism are among the bitter fruits of competition, mobility, change and diversity. Even so, his statement of the basic concepts and components of the American Way is so lucid, concise, neatly organized, and persuasive, that it would serve admirably as indoctrination material in the nation's class room.

Assuming, then, that our society has a moral basis for survival and that history may grant it a reprieve from destruction, what can be done, to strengthen its claims and realize its goals, by the public schools?

In formulating his recommendations and challenges, Conant keeps in the field of inquiry the always human figure of the individual American child—the son and daughter of Everyman. And by observing that this child is born in all sorts of familial, economic, and community situations, that he is beset by complex and contradictory pressures and expectations, that he may be rich or poor, brilliant or dull, black or white, Conant remains anchored to actualities. He keeps himself always in position to rebuke those pedagogues who, adjourning to the stratosphere to discuss Education in the abstract, forget that education is a social process taking place on earth, now in a rich Chicago suburb, now in the neighborhood of the Union stockyards, in a prairie "cow college," or under the elms around Harvard Yard.

It is for this figure of the multitudinous individual child that the school men in a democratic society must be chiefly concerned—to see that, whatever his place or circumstances, he is given his fair chance at an education. The competitive ladder must be made accessible to all youth, subbasement to pent house.

What does this accessibility involve? "We are," says Conant, "committed 1) to a democratic undifferentiated education as far as possible" for all children and beyond that 2) to differentiated vocational training, "of which professional education is a special case."

General "common core" education, as he sees it, should include, beside the three R's, the humanities, the study of man, and the natural sciences. On each of these subjects, he has shrewd and cutting comments, which should be pondered by the specialists involved. Speaking of the humanities, which he defines narrowly as the study of art and literature, he observes the teachers "can no-longer entice pupils . . . with appeal to the higher snobbery," to the tastes and affectations of the cultured gentleman. And he challenges the humanist to "relate his work to the current social and cultural scene . . . to ethics, to the welfare of the body politic and the emotional stability of the individual." Otherwise, art and literature will continue to seem ever more precious, pale, and archaic to most boys and girls.

The study of man, in whatever course it may appear, should aim to support certain postulates: the sacrosanct nature of the individual; the individual's obligations to other individuals;

* Harvard University Press. $3.

ing to it hopefully to bring a long-needed vitality to American student life. True, their hope is somewhat modified by a dash of skepticism born of experience; for they have seen other organizations rise and die in the short four-year span of a student generation—suffocated by apathy or by actual disruption. Nevertheless, the consensus of those who have viewed NSA from close range seems to be that the scales are tipped in its favor by the earnestness and maturity of most of the students who have thus far participated in it.

If such mature attitudes persist on our college campuses, then NSA's life is assured.

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Arthritis

(from page 511)

who used to be a teacher, now a housewife and mother. She suffers acutely, and the pain grows worse. She is extremely thin and the doctor is trying to build her up. She has three small children and the only times she has been free from pain were her pregnant intervals. About a month after each child was born, the arthritis returned and each time it was worse.

Now came a twelve-year-old high school girl, fresh and pretty in her red blouse and grey flannel suit. Her blonde hair hung casually over her shoulders, but all her careless grace was gone. She walked stiffly, like an old woman, moved her arms gingerly, and her face was grave and old.

This is what this doctor and his colleagues do:

First they make a careful diagnosis to determine which type of arthritis the patient has. Not all doctors—except those who have concerned themselves primarily with it—know how to make this careful diagnosis.

There are about a dozen types of arthritis and rheumatism. Fundamentally, there is no such thing as rheumatism—a generic term for a large group of unrelated diseases of the joints, bones, and muscles. All the variations are actually arthritis, falling into two main categories — osteo-arthritis, a form of joint degeneration over a long period, peculiar to people past middle life; and rheumatoid-arthritis, hitting the greatest number between the ages of twenty and forty-five.

Of arthritis the medical dictionary makes ten classifications — infectious arthritis; arthritis of rheumatic fever (probably of infectious origin); rheumatoid arthritis (proliferative, ankylosing, atrophic, articular rheumatism); osteo-arthritis; arthritis of immediate traumatic origin; arthritis associated with metabolic disturbances; arthritis of neuropathic origin, arthritis of neoplastic origin; arthritis of multiple types ("mixed arthritis"—several types in the same patient); and miscellaneous systemic or local joint disturbances.

Once the disease is diagnosed, the doctor treats the patient first—building him up to maximum health, restoring him to as close to normal condition as possible, before he ever begins on the disease.

Then he seeks to make the patient comfortable by relieving his pain and maintaining the functioning of his joints—by generous use of salicyllates and by physical therapy — baking, massage, diathermy, therapeutic pool.

Then he tries various special methods and treatments. Leading these is gold therapy, the injection of a suspension made of gold salts.

"Gold encourages us the most," said the doctor. "But it is not the whole answer. Sometimes it brings dramatic relief and apparent cure, but often the disease returns.

"I followed through on 150 cases. In the beginning 90 percent improved, some of them dramatically. After five years only 8 percent of them remained improved." (Some other doctors report better results.)

But gold, the doctor pointed out, has its limitations and its dangers. You can't give gold treatment too long—it loses its effectiveness occasionally. With many patients it creates toxicity that causes a painful skin rash, sometimes quite horrible skin lesions. It can involve the kidneys and blood, has caused some deaths.

At the moment experiments in progress to remove the toxicity of gold treatment seem somewhat encouraging.

Copper is also used experimentally for treatment. Bismuth is used by some. Many doctors still use large doses of Vitamin D and other vitamins, but this may serve only as a general tonic.

A new use of procaine, by intravenous injection, brought a great wave of hope. Pain subsided, joint swelling declined, people walked sud-

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denly free of misery. But its effects, too, were found to be transitory, and its dangers great. It is still under investigation. Curare, tetraethyl ammonium chloride, myanesin tolserol—these are other special treatments.

"There is no rationale behind the use of most of these things," a leading physician who directs two arthritis clinics told me. "Actually it's just out and try. It boils down to that."

Arthritis has a long history. It is the oldest disease known to man, or one of the oldest, and it has even been found in fossilized skeletons of the reptilian age — a matter of more than 100 million years ago. Julius Caesar wanted to conquer Gaul partly for Aix les Bains and other watering places where his rheumatic legionnaires could rest and find relief.

People called it "the misery," and rubbed on ointment. Some even now carry lodestones (magnets) in their pockets.

The real attack on arthritis began about twenty-five years ago. This was the period when they pulled out thousands of good teeth, seeking what they believed was a cause—a focal infection. Through the years that followed, they used vaccine treatment, no longer common. They used bee venom, cobra venom, pro-stigmine, and neo-stigmine (on their way out). They tried sulphur, which, irresponsibly heralded in the press after a reporter's hasty interview with the doctor trying it, took seven years to live down. Doctors tried everything and the sufferers fell for everything. Running pitifully through the history of seriously attempted cures are cases of outright charlatanry, fake cures, and cures thoughtlessly proclaimed before they were proved.

Slowly, through the past two decades, clinics have been established, more doctors have come into the field. Yet even now there are only some 400 doctors, out of the nation's 180,000, who concern themselves with arthritis. And it has been hard going to get even the meager $200,000 now available for research, and the 200 hospital beds.

Yet 60 percent of the rheumatic patients, doctors say, "can get a cure or substantial relief if given the right treatment at an early stage, and this without serious disturbance of their industrial or domestic life." And "crippling deformity can be prevented in a large proportion of cases if early diagnosis and effective treatment are provided."

The doctors who have struggled in this neglected area have considerable reason to hope that their attack against the social, physical, and economic waste by the No. 1 crippler will have good results. If a little research has determined that man can change the course of the disease, a great research effort may determine how to cure it.

Tuberculosis was a dread and fatal killer. And now, with $100,000,000 for research and 100,000 hospital beds, it is on its way to being a tamed enemy. The doctors know what happened to typhoid and diphtheria. They see that the great public response to the cancer campaign is already resulting in new light.

They are tired of saying "We don't know" to their desperate patients. They are getting ready to say, "We are finding out."

The address is easy to remember: "Arthritis — Box 1200, General Post Office, New York 1."

BATTLE CREEK SANITARIUM NEWS

Battle Creek, Michigan

May, 1937
Vol. 10, No. 5

Modern Methods in the Treatment of Arthritis

From the Arthritis Clinic of the
Battle Creek Sanitarium

THE PROBLEM of the successful treatment of arthritis offers the medical profession one of its most difficult tasks. The reasons are many. In the first place the causative factors are often obscure and confusing because of their multiplicity. Secondly, arthritis tends to be chronic and therefore discouraging to the patient, with the result that the patient is prone to seek miraculous immediate cures and to drift from one "cure" to another instead of staying on a rational method of treatment over a period of time which eventually might effect great improvement. If every case of arthritis could be started on a rational program of treatment at its onset, the percentage of improvement would be greatly increased and the terrific suffering and economic loss would be greatly diminished.

The Main Building of the Battle Creek Sanitarium

The economic importance of arthritis has been brought to the attention of the medical profession, due largely to the activities of the relatively newly formed American Committee for the Control of Rheumatism, which acts in cooperation with an international committee for the study of the same disease. Recently a survey of the extent of chronic diseases in the state of Massachusetts showed that 500,000 people in that state were suffering from chronic disease. Out of this number 138,000, or over twenty-five per cent, were afflicted with rheumatism. The next most frequent cause of disability was heart disease with 84,000, followed in order by arteriosclerosis with 64,000, digestive diseases with 29,000, diseases of ear and eye with 24,000, apoplexy with 16,000, tuberculosis with 16,000, diabetes with 15,000, and cancer with 11,500. Thus we can see that while our attention has been focused on cancer and tuberculosis, the more common chronic disease of arthritis has been more or less overlooked until recently when a rebirth of interest in rheumatism has occurred.

In Sweden the patients with arthritis are so numerous that four hospitals have been built especially for their care. In England, arthritis causes about one-sixth of the industrial disability. In Berlin, the number of patients afflicted with rheumatism exceeds those suffering with tuberculosis by about four times. In our own country, 35,000 ex-service men received over $10,000,000 in compensation for disability caused by arthritis. The above are but a few of an imposing array of statistics which tell us the importance of arthritis and offer a major challenge to the medical profession.

The baffling character of the disease is more forcibly brought to our attention when we realize that the cause is still undetermined. Chronic nonspecific arthritis is still being described in the Encyclopedia Britannica as a disease of unknown etiology.

As a result of the difficulty in finding a definite causative factor, the treatment of chronic arthritis is too often approached in a desultory manner. The arthritic patient is pushed from "pillar to post" and, as has been aptly stated, "one of the most popular methods of treating patients with arthritis is to send them to someone else." Consequently there is in every community an "arthritic population," ever hopeful, seeking relief constantly and oftentimes in desperation resorting to treatment from various unethical sources.

It is the duty of the medical profession to let it be known that there is hope for improvement and in a certain percentage of cases permanent cure for patients suffering from arthritis. The old concept that arthritis was an incurable disease and eventually resulted in crippling deformity regardless of what was done, has absolutely no foundation in the light of present day medicine. There are a great many statistics from clinics devoting their time and effort to the fight against arthritis which show marked improvement or cure in over seventy per cent of cases.

The hope for a greater percentage of improvement among arthritic patients is based upon the fact that the medical profession is realizing the importance of viewing the arthritic from a broader standpoint. Too often there is the danger that some relatively unimportant form of treatment is unduly stressed, to the exclusion of other forms of treatment, so that the arthritic patient is deprived of the benefits of a well-rounded management, and as a result his illness is prolonged. In other words, instead of merely treating the joints, the en-

tire patient is treated. Instead of trying to cure the patient with some one drug or vaccine, the physician has come to realize that the treatment should be of greater scope and that each arthritic patient offers an individual problem which may be entirely different from another case. This realization marks one of the important advances in the treatment of arthritis.

Just what constitutes a rational form of treatment for arthritis? A questionnaire was sent to a group of physicians interested in arthritis to ascertain what type of treatment they used, and it is interesting to note that all of them favored the following program:

1. Rest — mental and physical.
2. Removal of foci of infection — such as tonsils, teeth, gallbladder, etc., when necessary.
3. Physiotherapy — applications of heat, water, massage, passive and active exercises, etc.

The treatment which this clinic has used with a great deal of success is as follows:

1. **Rest** — both physical and mental, preferably away from home, carefully supervised and under competently trained physicians. It is oftentimes difficult for the patient to realize that a six months' rest cure along with other forms of treatment would help to effect a higher percentage of cure.

2. **Elimination of foci of infection.** Infections frequently mark the onset of rheumatism. Every patient should be carefully studied to see if there is infection in the teeth, tonsils, gallbladder, kidneys, prostate gland, ear, nose, throat, etc. It has been shown that infection removed early in the course of the disease will greatly help the patient in realizing a cure.

3. **Physiotherapy.** Careful massage, supervised exercise, heat in its various forms, sunlight, etc. judiciously applied, form an important part of the treatment of a patient with arthritis. Almost every authority on arthritis believes in the value of physical therapy.

4. **Vaccine treatment.** When indicated, vaccines have been used with success.

5. **Proper dietary regime.** What should a patient with arthritis eat? There is a good deal of disagreement upon this subject. Some authorities recommend a low carbohydrate diet with high vitamin content. In undernourished patients it is important that they receive a diet adequate in the proper amounts of carbohydrate, fat and protein. In those who are overweight it is important that a reducing diet be given.

6. **Drugs.** Drugs which will build up the patient, such as iron and arsenic compounds, are mostly used. Gold salts are used with some success in foreign countries. Iodine and sulphur compounds are given by some authorities.

7. Other forms of treatment, such as orthopedic, surgical, etc., are used when indicated.

It has been our experience in the treatment of arthritis that the patient should realize that, like tuberculosis, arthritis is a disease of marked chronicity, and therefore that improvement cannot be expected in a matter of hours or a few days, but comes with careful, patient management over a long period of time.

Cancer Can Be Cured

A. B. Olsen, M.D.

MUCH misapprehension and misunderstanding about the dread disease cancer prevail among the laity. There is a tendency to regard cancer as incurable and therefore to neglect treatment. But the very opposite is true and cancer is curable in the vast majority of cases providing it is treated in the earliest stage and as nearly as possible at the very beginning. The prospect of cure at that time is excellent.

In 1900 the mortality from cancer rated tenth in the list of diseases in this country. Since then there has been an enormous increase in this wide-spread plague and now it is second, with only heart disease rating a higher death rate. In 1900 one out of sixteen deaths was caused by cancer, while at the present time the rate is one in ten. It is estimated by authorities that if the same increase continues by 1960 one out of five will be dying of cancer. The disease seems to be more frequent now, but it is also important to remember that the death rate in childhood and youth from children's diseases has been materially reduced during the past generation so that a larger number of people reach the cancer age. Cancer is comparatively rare in the first three or four decades of life, but in the middle and later ages, from forty to sixty or seventy years, the disease is rampant. It has been described as a disease of the decline of life, for that is the time when people are most susceptible to its ravages.

While the actual and definite cause of cancer has not yet been discovered, we do know that it is a malignant disease associated with a new growth of tissue, often called a tumor. The most dangerous characteristic is that the growth is not localized but extends into surrounding tissues and spreads through the blood to almost any part of the body. Wherever the tumor is growing it has destructive effects, both mechanically and otherwise, upon the surrounding tissues and directly interferes with their normal function.

"Fight Cancer with Knowledge"

The American Society for the Control of Cancer has adopted for its slogan, "Fight Cancer with Knowledge," an excellent motto which clearly indicates the best method of dealing with this grave problem. This fine society has inaugurated a very worth-while campaign for the purpose of spreading knowledge about the control and treatment of this dread disease. While authorities generally agree that cancer is not inherited, we must recognize that susceptibility to the disease varies in different families, some apparently being predisposed to attack on account of an inherited tendency or trend in this direction. All people with a family history of cancer should be particularly careful to avoid injuries of any kind and also to avoid chronic irritation of any part of the body. A jagged tooth with a sharp edge should be promptly treated or removed because the irritation such a tooth causes in the cheek or tongue may be sufficient to produce a cancer in the course of time. The grating roughness of a clay pipe has been known to develop cancer of the lip. It is also believed that the hot, poisonous smoke of tobacco, laden with

nicotine, carbon monoxide gas, pyridine and other toxins has a definite irritating effect upon the lips, tongue and other tissues of the mouth and may in time give rise to cancer.

When speaking about irritation we must realize that this is not only physical and mechanical but also chemical, which accounts for the danger of tobacco smoke. Coal tar derivatives, aniline dyes, soot and other irritants are recognized as possible means of developing cancer. This has been demonstrated by the excellent work of Doctor Maud Slye and others.

It is well to emphasize the fact that cancer is not contagious and that there is no danger of contamination by contact with a cancerous patient. There was a time in the past when some authorities thought that cancer might be infectious and that those coming in contact with such patients would run a risk of catching the disease, but medical authorities now have definite proof obtained from careful research that the disease is not transmitted directly from one person to another.

Symptoms

Emphasis will be placed upon the earliest symptoms for they are the most important and should receive the earliest possible attention, first of the patient and then at once from a competent doctor. There are certain moles, usually pigmented and more or less hairy, which may, with the advance of years, develop malignancy. It takes an experienced doctor to recognize these moles and know which ones might cause trouble in the course of time. It is a wise precaution to have these suspicious moles removed by a very slight and mild treatment, often by the electric needle, but always by an expert who has had experience in this type of therapy. Most moles rarely if ever give any trouble but there are exceptions and these should be taken care of before they cause mischief.

The development in or under the skin or mucous membranes anywhere, slowly or suddenly, of any lump or swelling should receive the immediate attention of an experienced doctor who will be able to diagnose the type of tumor, whether innocent or malignant. A wen or lipoma (fatty tumor) is a good example of a non-malignant tumor or growth which does not spread and only causes local mechanical trouble. If a small tumor of this type is not causing any trouble, even mechanical, an operation is not necessary but there are some innocent tumors such as a fibroid of the womb, which may later on develop malignancy and produce cancer. It goes without saying that such tumors should be promptly removed before there is any danger of such a degeneration. A lump in the breast is always suspicious and demands a consultation with a competent doctor.

Sores of any kind or anywhere on the body which do not heal promptly and normally, also demand medical advice. It is a mistake to neglect such a sore for all abrasions of the skin from bruises, cuts or other injury heal promptly and normally within the course of a few days as a rule. If there is any marked delay medical counsel is clearly indicated.

The development of a new or unusual discharge or bleeding from any part of the body requires a prompt visit to the doctor.

Treatment

The sooner the treatment by removal of cancer, the greater the certainty of a permanent cure. One excellent authority makes the following encouraging statement:

"Of all diseases early cancer is the most curable."

These are only some of the ways in which a cancer may start. If seen early and promptly and properly treated, the danger of a cancer is almost always averted, even though the little lump is already cancerous. The delay of weeks or even days is always dangerous and should never be tolerated. Cancerous tissue has a predilection not only to spread locally but also to spread to any part of the body through the blood or through the lymphatic vessels, and when this has once taken place cure is well-nigh impossible. The time to treat the cancer is before there has been any opportunity for the cancerous tissue to enter the blood or lymph stream.

All who would escape malignant disease must remember that cancer is a spreading disease and that it invades not only the surrounding tissues but also other parts of the body. A cancer in the abdomen or head or one of the limbs may easily spread into the lungs or elsewhere.

On the slightest suspicion of any sign or symptom of beginning cancer it is imperative to consult a qualified physician. Go at once, for delay spells disaster. A word to the wise. . . .

Self-control in little things means self-control in big things. Study to discover what is the weak point in your armor, what keeps you from the fullest success.—Elwin Lincoln House.

From the Sanitarium Question Box

Question: Does the use of frequent enemas weaken the colon? Is it possible to have too clean a colon?

Answer: According to Lane of London, it is just as natural to wash out the rectum as it is to wash out the mouth. Normal bowel action two or three times a day should be promoted by a laxative diet including the abundant use of fresh fruits, fresh vegetables and whole grain preparations. Water and fruit juices should be taken freely. A clean colon means normal daily evacuations and freedom from putrefaction.

Question: When a moderately bland diet seems to burn the stomach, what is the cause?

Answer: This condition seems to indicate hyperacidity, too much hydrochloric in the stomach, a not uncommon condition. Consult your doctor and have a fractional gastric test to ascertain the quality of the stomach juice and its digestive ability.

Question: What causes weakness of the heart muscle?

Answer: Nervous or physical strain of any kind such as athletic sports without proper training, lifting heavy articles, rapid walking or running or other forms of exercise, unless one has been properly trained for these types of muscular effort. Worry and anxiety may also put a strain upon the heart by raising the blood pressure. Any disease that weakens the body has a more or less weakening effect upon the heart muscle.

Question: What causes "growing pains" in children?

Answer: "Growing pains" in children have nothing to do with growth but are an indication of some focus of infection in the system such as diseased tonsils, teeth, sinuses or some other part of the body. The doctor should be called promptly for they may be the precursor of rheumatic fever or some other serious illness.

Question: How can one be a carrier of a disease that is not active?

Answer: Persons who have suffered from typhoid fever, malaria, amebic dysentery and other diseases may make an apparent recovery with the parasites or germs remaining latent in some part of the body such as the gallbladder. In the case of the ameba or the typhoid fever germ, these carriers may be a serious menace to healthy people. This is particularly true if they are liable to contact the food or drink served, as in the case of a cook.

Lobby Notes

Our old friend, Mr. W. J. Austin, President of the Austin Construction Company of Cleveland, is having a very interesting and enjoyable holiday on Wake Island, about three-quarters of a mile long and one-third of a mile wide. Here he has been busily engaged in fishing, swimming and photography, and we are looking forward with interest to an illustrated address from him later on, telling about this new tourist center. Here are some very brief excerpts from a recent letter:

"I have been having one of the best and most interesting vacations that ever I have had, and I am surely glad that I came. The journey was as smooth and pleasant as could be. In the whole trip there was not as much motion as in one wave on the Queen Mary. . . .

"The hotel at Wake has twenty-four rooms and baths and has larger lounge space, very nicely furnished and has everything for comfort. . . . Everything on the island is at my disposal — boats, motor boats and glass bottom — a motor truck, boys to carry my cameras. . . .

"And the fishing! — Well, we weren't out long until I got a big strike and after much struggling pulled in a bonito four feet long weighing twenty-five pounds and much fatigued was I when we got him in and it required some help from the others. There were five of us, we fished two at a time and we had great sport. We brought in four-hundred pounds of fish. My prize was a forty-five pound tuna, a beautiful fish and a great fighter. We were the first to catch tuna on the island. They did not know whether or not tuna fish were there. I caught four varieties of fish — tuna, bonito, barracuda and alna."

* * *

Saginaw, Mich. is represented this week by the return of Mr. and Mrs. Maurice W. Lamson; also Mr. Herbert Abar, who is visiting us for the first time.

* * *

It was pleasant to see Mr. Harold K. Ferguson of Cleveland last week. Mr. Ferguson is head of the firm holding the general contract for constructing the addition to the Post Products Division of General Foods Corp. here in Battle Creek. This is his first visit since 1928 and he has renewed many old acquaintances.

Mr. Herbert S. Siebel

We are pleased to have with us again an interesting business man of wide experience and travel in the person of Mr. Herbert S. Siebel of Saginaw, Mich. He is well known as a dealer and judge of rare jewels. He is also known for his many trips across the ocean by zeppelin. Last summer he boarded the American Air Ways plane at Detroit and with a 200-mile cruising speed he was soon in Lakehurst, N. J., where he took the Hindenburg with his personal friend, Dr. Hugo von Eckner, commander of the zeppelin, heading for Frankfort on Main. From there he boarded a plane for Copenhagen, Denmark and then to Sweden. Altogether his whole trip, there and back, took only a little over five days of actual traveling. While going over he experienced the unique pleasure of "riding the hurricane" described in the December issue of the Reader's Digest of 1936.

He expressed himself as having had a pleasant time at the Olympics and observed that it was very successful and the people appeared to be happy and contented. Incidentally he was entertained by the Kaiser's grandson. He was fascinated with Sweden and Denmark and remarked that he found living conditions more reasonable there and in Germany than in France. He expressed his appreciation of the American Airways for the excellent stewardess service rendered, which was lacking in the foreign planes. He said their kindly attention and solicitation was invaluable, especially in case of sickness and uneasiness on the part of the patrons.

Among many business men registered as guests in the Sanitarium are: Mr. M. H. Harris of Omaha, Nebr., representative of the Toledo Scales Company; Mr. George N. Higman, of Muncie, Indiana, President of the Mutual Home and Savings Assn.; Mr. David Granger, Steamship Agent and business man from New York City; Mr. Jesse R. Sweasy, Shoe manufacturer of Red Wing, Minn.; J. Warren White, vice president and treasurer of the Sisson Drug Co., West Hartford, Conn.; Mr. Charles Burrows, of Little Falls, N. Y., President of the National American Mohawk Valley Paper Company; Mr. Marcelino Garcia, Sugar refiner of Havana, Cuba; Mr. William B. Morton, manufacturer of Beatrice, Nebr.; Mr. J. Joe Shannon, real estate man from Gainesville, Fla.; Mr. C. Richard Maylor, sales manager of a Railway Supply Co., Chicago; Mr. Jess Lee, Fairbury, Nebr., merchant; and our good friend, Mr. W. M. G. Howse of Wichita, Kan.

* * *

We are pleased to welcome Mrs. Constance Godsol, of Bursinal, Vaud, Switzerland, and her friend and companion, Mrs. Frances S. Moore, of London, Ont. Mrs. Godsol has been coming here since 1916. Mrs. Moore was a former nurse of the institution. They have many warm friends among our guests and the Sanitarium family. They are booked to sail for Switzerland, April 28, on the Normandie. We wish for them a safe and pleasant voyage.

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A FRIENDLY NOTE

"I was a guest in the "San" for three weeks and am happy to say that when I left I felt like a different person and my friends think I also look different. My blood pressure was reduced from 200 to about 160 without drugs and while having this treatment I was enjoying every minute of it. Had I not received this help I still would say that my trip would have been worth while to have seen such a marvelous place. The constipation I suffered from is entirely cured and I sleep. I feel that it was a real investment and just hope that I shall be able to repeat the visit at some future date. Such uniform courtesy and kindness I have not met with before.

"My sister expects to come for two weeks after she saw what was done for me.

"Thanking you for all the courtesies extended while in your wonderful health resort, I am, with best wishes."

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