*The Oriental Watchman and Herald of*

# HEALTH

A MAGAZINE FOR HEALTH HOME AND HAPPINESS

W. N. P. S.

She couldn't believe it!

40th Year of Publication

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## IN THIS ISSUE.

B.I.S.

### PHYSICAL MEDICINE FOR CHILDREN

The Physical Medicine Department of the Hospital for Sick Children, Great Ormond Street, in London, has the distinction of being a pioneer branch. Its fame is world-wide, and nowhere is there anything quite like it. Doctors and physiotherapists from the Dominions and many foreign countries are regular visitors to study the Departments' methods. Many parents take children to this hospital when they are found to suffer with knock knees. It is a condition which can be overcome in some eighteen months if home exercises are regularly carried out. Here, three-year-old Maud Evans is being instructed in a set of home exercises by the physiotherapist.

B.I.S.

Here is Susan, who has been suffering with infantile paralysis for two years out of her two and a half years of life; now at last, thanks to treatment thrice weekly, the dreaded illness is overcome. Rehabilitation is in its last stages, only a very slight weakness of the child's left shoulder remains. The deltoid muscle being re-educated in Guthrie Smith slings.

# EDITORIAL

## PHILOSOPHY

PHILOSOPHY was formerly speculation about the nature of things in general. Now and then some of its "discoveries" were truth, but for the most part they were childish fantasy, erudite imagination and utter falsehood as is easily ascertained by even the most elementary summary of the teachings of a number of leading philosophers on any particular subject that may be chosen. It is regrettable that the powers and energies of some of the worlds greatest minds were dissipated in such useless and often misleading and harmful activities. When the speculation was confined to natural phenomena and to the world of things that lies about us in everyday life and which are open to observation on every side, and to such matters as may be verified by science, a few truths were actually arrived at by philosophy: but the great majority of their "truths" were long ago proved by science to be superstition and error. In the realm of human experience, philosophic speculation confined within certain limits may have its place, but its conclusions must usually be accepted as hypothesis which may or may not be fact.

The function of philosophers cannot be that of specialists as that of scientists. The professed aim of philosophy is to show the relationship between all things and to present the universe as a rational system in the harmony of all its parts. This will be borne out by the reading of any of the philosophers, regardless of the fact that their system of reasoning may disagree with all others. So every philosopher should refuse to consider the parts out of relationship to other parts and to the whole of which they are parts.

Many of the philosophers ancient and more recent have made or have attempted to make religion of their philosophy and in so doing have violated the principle expressed above and have tried to specialize on the nature of God, the nature of the soul, and such matters, without considering them rationally in relationship to the universe as a whole, because that is something which they cannot do, wherefore they have arrived at many meaningless, false, and absurd conclusions some of which have dominated world thought for centuries. The violation of this principle is one explanation for the fact that among the great philosophers, there are hardly any two who have arrived at the same conclusions: and therefore none of the conclusions can be accepted as dependable. There are among them assertions and counter assertions, theories and refutations, "proof" that is no truth, and error long accepted as truth which science has now shown to be false. All of which gives rise to the feeling that there is safety in no philosophers' conclusions; especially in matters pertaining to God, the soul, and other such matters that are utterly beyond the reach of the human mind. The nature of the divinity and the nature and destiny of the human soul are subjects which the philosopher cannot study in their relationship to matters that may be known and experienced objectively. They cannot be proved by science—much less by philosophy.

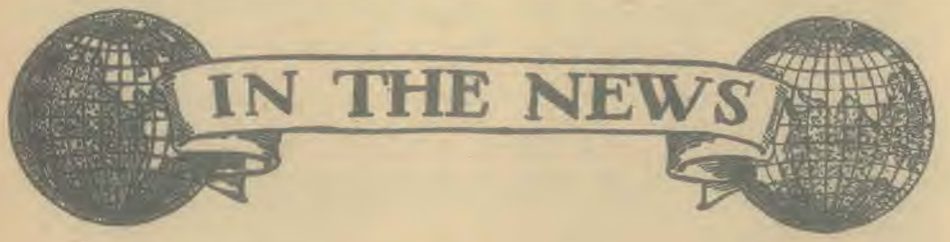
The fact that most of the philosophers of the present day have discarded the idea that the soul and mind are one and the same is another evidence of the uncertain and changeable character of philosophic conclusions. The character of the argument must now assume a different form and that which was asserted in former days is now obsolete because of the new "discoveries" that have been made. By psychology, or the science of the mind, is studied the fact of intelligence which places in hand the fact to which all other facts are related. Mind is thus an established objective fact whereas soul, as far as philosophy and science are concerned, is only a speculative abstraction for which even the existence cannot be proved not to mention all that host of qualities that have been described. The "proofs" of the philosophers are so varied, so confusing, that they cannot be accepted as proof of anything. The reasoning is profound. It delves into the very depths of know-nothing speculation and brings up from the bottom nonsense too mysterious for the human mind to fathom. The fact that the same philosopher discards the philosophy of one period of his life only to adopt another and that he frequently refutes his own theories and contradicts himself is evidence enough of the worthlessness of it all.

The philosophers are exceedingly subtle and wily. No one unaccustomed to their ways is safe in subjecting himself to their sophistries. Their crafty arguments may be and often are the grossest of error, and yet there is no answer except by careful analysis and scrutiny, such as the untrained are unable to make. They seem to have no need for reality and philosophize everything into illusion and delusion. They reason substance and the earth, nay the entire universe, out of existence and all knowledge along with them. They reason God Himself out of existence or into a product of their own manufacture.

That philosophy that busies itself with human experience here on earth or with the material aspects of the world about us, though it may arrive at wrong conclusions is not so great an evil to the world as that which concerns itself with matters that are utterly beyond the scope of the human mind. Says one modern philosopher whose influence is widespread and who represents millions: "Thus religion begins where philosophy ends." "Religion without philosophy runs into superstition." "Religion and philosophy are one." This philosopher is an illustration of the results of his own philosophy.

The conclusions of philosophers are rarely real knowledge. They are conjectures and guess work pure and

simple. In many instances they are not even acceptable hypotheses useful as a basis for investigation and objective study. Knowledge, actual knowledge, of the material world about us is at the best partial and imperfect, but the incomplete and imperfect nature of such knowledge is known to students and investigators who make no other claims. New knowledge in practically every line of scientific learning is constantly being discovered and applied to the practical affairs of life so that that which was up to date and useful a few years ago is now useless except as it has served as a foundation on which to build. But not so with the "discoveries" of the philosophers. They find security in the fact that their metaphysical findings cannot be investigated or tried by experiment and research. Mere theories and speculation about matters that cannot be proved are offered as truth. If all philosophy led to the same conclusions there would be some sense in accepting those conclusions, but in the absence of such agreement they are all unworthy of confidence, and most of that which is called religion today is based on the work of philosophers.




### U. S. on Verge of Glut Conditions

FIVE MILLION BUSHELS OF GRAIN SURPLUS

THE U. S. is on the verge of glut conditions, according to reports reaching the Agriculture Department on the eve of the winter wheat harvest.

Indications are that after all U. S. domestic needs are met this year, approximately one thousand million bushels will remain over and of this exports will drain off less than half. Thus the U. S. faces a surplus at the end of the crop year of nearly a full year's domestic requirements. —*P. T. I.—Reuter.*

### U. S. Pilots Establish New World Record

GREETED by a tremendous cheer from an excited crowd of 8,000 people at Fullerton airport last night, Dick Riedel and Bill Barris landed the light plane in which they had been flying continuously for six weeks. They touched down one minute later than they had planned, making the total time aloft 1,008 hours and one minute.

Despite a missing tail-wheel the landing was made without any mishap. To the surprise of friends who had come prepared to carry the pilots away on stretchers, both men walked from the plane unaided. They were clean shaven and wore clean shirts.

It is estimated that they have flown more than 75,000 miles, equal to three times around the world.

### Locked in Sealed Room

THE Brooklyn Police (New York) said they had rescued a thirty-three year old man imprisoned in a sealed room for the past ten years by his mother to prevent him from being conscripted to the armed forces. The mother had locked him in a third-floor bedroom and sealed the door of the room with plaster and bricks. He was fed through an opening in the ceiling which led to the roof.

### Concentration Camp a National Monument

THE ill-famed Nazi concentration camp at Mauthausen, in Austria, has been turned into a national monument to the memory of the prisoners who lost their lives there, and has been opened to the public.

### Reputation at Stake

ON SEAL ISLAND in False Bay, hundreds of seal pups, deserted by their parents, are dying of starvation. It all sounds like the beginning of the particular types of "thriller" popular many years ago in which the first signs of a lethal ray attack from Mars was death in the animal world. In this instance it is known that the adult herd left the island last month and it is presumed that it followed a particularly large shoal of sardines. Quite possibly, in keeping pace with their mobile larder the seals achieved such a happy marriage of supply and demand that they forgot their parental duties back on the island. Their situation may even be in contrast to our own with too few seals chasing too many sardines, the result being a physical inflation that is the reverse of its economic counterpart. The strange thing is that seals are accounted excellent parents and fisherfolk who know their habits well are indignant over suggestions of desertion, preferring to believe that some disaster has befallen the herd. It will be a sad commentary on the post-war world if even the seals are ready to abandon old values as soon as plenty waves its pretty tail.

### Phone Robot

A DEVICE that automatically answers the telephone and takes a message for a person when he is away has been invented in the United States. The phone robot works by electrical induction and is called the "Tele-Magnet." The manufacturer, the Mohawk Business Machines Corporation of New York City, says it soon will be available commercially.

The two main parts of the machine are an arm to lift the receiver, and a wire recorder. The apparatus goes into action the second time the phone rings. The arm picks up the receiver and makes the connection, and simultaneously starts a phonograph record containing instructions to the caller in the owner's voice. These instructions explain that he is not in the office and direct the caller to leave a message with the "Tele-Magnet" at the sound of a chime signal. The message is recorded and is played back by the owner when he returns. —*USIS.*

### Looking Ahead

A RECENT article in *The Saturday Evening Post* gives an interesting account of the growth in popularity of the Museum of Science and Industry in Chicago. While quoting the attendance, which has risen from less

than 650,000 in 1940 to over 1,360,000 in 1947, the author shrewdly observes that even more important is the average time spent by each person in the museum, which has risen from fifty-five minutes to three and a half hours. This phenomenal rise in attendance has been due almost entirely to the novel and interesting method of presenting the exhibits to the public.

IN INDIA, there is approximately one museum per 4,000,000 population as compared with one per 70,000 in the U. S. A. and one per 80,000 in prewar Germany. Although the attendance figures in India are fairly high—those for the Prince of Wales Museum in Bombay being about 1,000,000 persons per year—many of the visitors are illiterate and unable to derive much information from the labelled collections. Moreover, investigation suggests that their attendance at the museum is probably due less to their interest in the exhibits than to the cheapness of this way of spending an idle hour or so. In the authoritative Markham-Hargreaves report on Museums in India, the curator of the Bijapur Museum reveals that only 300 out of 1,500 copies of the guide book issued by him had been sold in seven years. Even this is eclipsed by the Nagpur Museum which, in the year covered by the report, sold two copies of the English and one of the Marathi version of its guide book!

## WHAT THEY SAY

"I had the opportunity of reading your magazine for HEALTH, HOME AND HAPPINESS and I am very much taken up by it. This seems to be one of the ideal books for a family. I shall be pleased if you would send me detailed information for enlisting as a subscriber of your magazine."—*J. S.*, Bangalore.

* * *

"I have been a regular subscriber of HEALTH for a number of years, and want to tell you that I have thoroughly enjoyed reading the valuable articles it contains. My family too look forward to the magazine each month for the children's articles and the recipes which are very practical."—*J. P.*, Ceylon.

* * *

"I have been away from home for some time, and issues of HEALTH for May and June have been misplaced. Kindly send these to me and oblige, as I do not wish to miss the valuable information they bring to me. Each year I bind the copies of the magazine for ready reference.—*H.M.M.*, Pakistan.

## Yeast as Food

TWO scientists, one from India and the other from the United States, say that yeast cells, under certain conditions, grow on the alcohol they produce. This discovery, the *New York Times* reports, is expected to help in the cultivation and utilization of various types of industrial and food yeasts, and "thus aid in fighting hunger in all lands."

Dr. P. N. Agarwal of India, and Dr. W. H. Petersen of the University of Wisconsin, Madison, Wisconsin, made the discovery in a series of experiments during Agarwal's three years of postgraduate work at the University. Their investigations concerned saccharomyces cerevisiæ (beer yeast), and two food yeasts—torulopsis utilis and candida arborea.

These yeasts, the scientist proved, can grow in cane sugar and sugar-beet molasses in the presence of air and produce ethyl alcohol. But growth does not stop there. The yeast cells derive additional energy from the alcohol and keep on growing.

Like many other countries, the newspaper notes, "India faces the tremendous problem of feeding millions of people an inexpensive, adequate, balanced diet. Her scientists know that India has plenty of sugar and molasses, but not enough of protein-rich foods, such as meat, fish, eggs, and dairy products."

Since food yeasts are rich in proteins, vitamins of the B complex, and other nutrients, the *Times* says, "Yeast culture and utilization under Indian conditions thus assume great nutritional importance."—*USIS.*

## U. S. Housewives' "Ideal" Potato

A SURVEY conducted by the United States Department of Agriculture among 3,300 American housewives gives a portrait of their "ideal" white potato. It should be: Clean, of medium size, free from spots and marked by few "eyes," light in colour and undamaged. Medium-sized potatoes (about eight ounces) are preferred because they are considered easier to peal and handle and best suited for individual portions.

While many housewives think the potato's only food value is its starch, the Department notes, the facts are that the average-size potato also has as much iron as two slices of bread, and that a boiled potato has as much Vitamin C as a small glass of tomato juice. Vitamin C, or ascorbic acid, is essential in the prevention of scurvy.—*USIS.*

## COMING NEXT MONTH

**Osteo-Arthritis and Muscular Rheumatism**

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**Preparing Your Food**

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**What to Do for Sinusitis**

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**The Case of the Mentally Ill Child**

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**Building Up Vital Resistance**

* *

**Adjusting the Mind to Heart Diseases**

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**What about Hormones?**

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**Editorial**

* *

**The Doctor Says**

* *

**Etc., Etc.**

# HEALTH PROBLEMS in SOUTHERN ASIA

*AS presented in a Radio Interview Broadcast from Nagpur by Miss Lois Burnett, Consultant for the Nursing Education and Service of the World Conference of Seventh-day Adventists.*

ANNOUNCER: Welcome to Nagpur, Miss Burnett! I understand that you plan to spend several months in India and Pakistan and other countries of the Far East. Our listening audience will appreciate knowing about the purpose of your trip.

MISS BURNETT: I am a professional nurse and a member of a religious body in which medical work is a basic factor in the work of the church as a whole.

ANNOUNCER: Do you mean to say that according to you, spiritual well-being and physical health go hand-in-hand; the two cannot be separated?

MISS BURNETT: Yes, we believe that every individual should be given health instruction and guidance to help him attain to the best possible health status. Also in the treatment of disease the natural remedies are used in so far as it is possible. These include the use of fresh air, sunshine, exercise, use of hot and cold water, a balanced diet consisting chiefly of fruits, grains, vegetables, and nuts; abstaining from the use of alcohol, tobacco, and other harmful drugs; the practice of mental hygiene which includes a trust in Divine Power.

ANNOUNCER: I understand that you have spent several weeks travelling in India and Pakistan and have had conferences with health workers and have visited a number of hospitals. What are your impressions of the health conditions of these countries and what do you consider to be their most conspicuous health needs?

MISS BURNETT: There appears to be a desire by the people here to attain a better health status and to establish the best possible way of life for all. The visitor is impressed with the limited facilities for community sanitation, such as a lack of safe sewage disposal and a safe water supply. The visitor also concludes that the limitations in health services in the community and to the individual are due almost directly to the low economic status and limited education of many of the people which prevents their receiving adequate health instruction and protection. A more careful observation of the health needs of India reveals deficiency in numbers of medical personnel to give adequate health service to the people.

ANNOUNCER: You are talking about the general health of the people. But my point in referring you to hospitals particularly is to ascertain from you the position of professional nursing in India and Pakistan today.

MISS BURNETT: Yes, I understand. Anyone visiting a hospital, quickly recognizes that a good plan of medical service requires many more nurses than doctors. But I am told that in India and Pakistan there are fewer nurses than doctors. Also there are not enough nurses to meet the needs of the nursing service. There are certain private hospitals which are to be commended for having educated at least half of the nurses who are practising in these countries; but this group, in addition to the other schools of nursing, are not supplying a sufficient number of nurses.

ANNOUNCER: What would you say are some of the factors which have retarded the supply of properly qualified nurses in these countries?

MISS BURNETT: The tremendous difficulties of caste, status of women, and women's education, prejudices, and superstitions have been a brake on progress in this field of endeavour. The idea is still prevalent that nursing is a menial task and engaged in by those who have few intellectual or other talents. In keeping with this there is an idea that it is a degraded profession, one in which the moral life of the nurse might be questioned. Because of these prejudiced ideas, nursing has developed much more slowly here than in other countries.

ANNOUNCER: What relationship do you see between the future progress of these countries and the health facilities and services which are available to the people?

MISS BURNETT: The health of the country is dependent on the physical vigour of the people. Regardless of the preparation of a citizen, regardless of the financial resources, and regardless of the industrial equipment and other backing which he may have—it is all to no avail if he does not enjoy health. For example, if a person has insufficient food over long periods of time, he will be lacking in physical energy and will be listless and lazy, lacking in initiative and intellectual vigour. We can expect that the experience of India and Pakistan will follow the same patterns of other countries in that a good programme of health education and medical service has resulted in high industrial output, happier living, and better citizenship.

ANNOUNCER: Well, Miss Burnett, you have very thoroughly analyzed the acute need of health services here. Now, would you state from your observations what you consider to be some of the specific health needs? Let us begin this analysis with some of the more common problems of maternal and child health programmes.

MISS BURNETT: The greatest accomplishments in this field of health are made by providing adequate health services for the mother during pregnancy. If a good health status can be attained in infancy and in early childhood, this will serve as an excellent background for future living. The reverse is also true. If the mother has had inadequate nutrition and protection during the months of pregnancy, and if the same conditions prevail during early childhood, the physical development

of the child may be impaired to such an extent that it cannot be completely corrected later in life, even though the environment may become ideal.

ANNOUNCER: That is true, Miss Burnett, but what you have said applies only to the pre-natal period. There is also another very astounding fact which stares mercilessly in our faces when we discuss this issue, i.e., the appallingly high rate of infant mortality. Would you have, therefore, any remarks to offer regarding prevention of disease in the case of small children?

MISS BURNETT: Yes, certainly! Disease prevention in small children includes the immunization of the child from the communicable diseases for which immunization is available. Everyone—both adults and children—should be vaccinated for smallpox. Usually, six months of age is recommended as a desirable time for vaccinating a baby for smallpox. It is recognized that diphtheria and whooping cough are diseases which have their highest mortality particularly in children under six years of age. We are fortunate that immunization is available today to protect against or lessen the severity of these diseases. The people should become aware through health education of these facilities and be encouraged to protect each child.

There is another factor to which I should like to call attention: I have observed that many people in these countries have the mistaken idea that the child should be solely breast-fed for a much longer period than is desirable.

ANNOUNCER: This is something new to me. I am very interested.... You.... Do continue, please!

MISS BURNETT: Yes, I was referring to breast-feeding for a longer period than is necessary. However, everything possible should be done to encourage mothers to breast-feed their babies until they are approximately nine months old. But beginning about the sixth week, the breast-feeding should be supplemented by the addition of orange or tomato juice. A few weeks later to this diet should be added well-cooked and strained cereal gruels; and a few weeks after this the addition of a few pureed, or strained vegetables. Of course, I suppose that it is needless for me to mention to our listeners that hot chillies and curries should be omitted entirely from the child's diet, that tea and coffee are stimulants and not proper foods, and are particularly undesirable for the growing child.

ANNOUNCER: Now, Miss Burnett, we have been discussing some of the essentials for good health during pregnancy and early childhood. What do you have to say regarding the diet for the masses of the people?

MISS BURNETT: You have asked me concerning one of the most important factors of the problems of health in India and Pakistan. It is my understanding that there are thousands of people in this country who cannot afford to provide themselves and their families with sufficient food to meet their daily needs. The result is an inadequate food intake because of lack of variety of good food. It is also regrettable that in the rice-eating areas, polished rice is used rather than the red rice. Red rice will prevent the disease known as beri-beri. I understand that this Province is more fortunate in this respect in that the necessary measures against this evil have been taken. The problem of food supply is an economic one; while the problem of the prevention of beri-beri is educational.

ANNOUNCER: You have emphasized the low economic level of the people as constituting one of the principle factors of poor nutrition of the masses. It is well known that flesh food is one of the most expensive foods. Now I should like to ask, Do you think it is possible to secure all the nutritional requirements needed in a well-balanced diet without the inclusion of flesh foods?

MISS BURNETT: Speaking from personal experience and extensive study of nutrition, I can answer the question in the affirmative. While it is true that meat provides the most ready and concentrated supply of certain elements which repair body tissue and promote growth, there are also disadvantages in its use. As has been mentioned, it is one of the most expensive articles of food; and thus, cannot be readily provided to the people of the lower income groups. However, the chief reason for not including meat in the diet is the prevalence of disease in all animal life and the possibility of the transmission of disease to man. Then, of course, it does also seem unnecessary to take the life of the animal to provide food for man when the earth provides food so abundantly and more economically by supplying fruits, cereals, nuts, and vegetables.

ANNOUNCER: Now, Miss Burnett, you have surely made some worthwhile observations regarding diet. But what additional suggestions would you have for improving the nutrition of the people?

MISS BURNETT: There is much that could be said, but due to the limited time I can mention only a few. It is recognized that people should have a greater understanding of the importance of providing a variety of foods in each group. For example, there should be a variety of leafy, yellow and other vegetables. In addition to providing a variety to the diet the method of cooking must receive consideration. The over-cooking of food is to be discouraged as well as the discarding of the water in which it is cooked. This is an undesirable practice because much of the nutritional value is lost when the cooking water is thrown away or when the food is over-cooked. Another source which results in loss of food value is by improper preservation of food when it is cooked.

Finally, I would suggest a simple formula for good health:

1. A balanced diet. By this I mean a diet which includes a variety of the readily available, less-expensive fruits, vegetables, cereals, and nuts. Some milk and eggs each week are desirable supplements.
2. Sufficient rest and sleep to meet the physical needs of the individual.
3. Plenty of fresh air and sunshine.
4. Physical exercise which is adapted for the best development of the body.
5. Cleanliness of body and environment.
6. Abundance of safe drinking water.
7. Control and protection from communicable diseases.
8. Mental hygiene, which might better be expressed as trust in Divine Power. I have stated this in this way for where there is trust in Divine Power, the mental hygiene is good because the individual is then free from fear, tension, anxiety, emotional insecurity, and social maladjustment.

In other words, pure air, sunlight, abstemiousness, rest, exercise, proper diet, the use of water, trust in Divine Power—these are the true remedies for meeting "the problems of health."

ANNOUNCER: Thank you very, very much, Miss Burnett, for this splendid analysis of the Problem of Health in Southern Asia.

# RHEUMATIC FEVER

## *Childhood's Enemy No. 1*

WALTER MODELL

IT IS a curious fact that the interest the public takes in a disease is not determined by its seriousness to the person or by its communal importance but rather by the excitement it produces. Since rheumatic fever is with us continuously and does not swoop down in dramatic epidemics, many are unaware of its existence. Only the mothers of children suffering from it have more than a passing interest in rheumatic fever. Remember, it doesn't really matter who has the disease: in some way it is bound to affect you. Everyone has a stake in rheumatic fever, a financial interest, a moral obligation, a patriotic duty, and each of us can make an important contribution to its control.

You can help clip the claws of this community dragon. Laymen are wont to pooh-pooh their role in reducing the menace of disease. The ravages of tuberculosis have been curtailed in recent years only by the combined efforts of the public and the medical profession. Education of the public to the perils and their part in combating them has been the mainstay in reducing the incidence of disease. Such a united front resulting from public exposure of a disease has been far more effective than when the morbid and unsavoury details have been confined to the physician and the research institute. Much too frequently the unfortunate sufferer has been the only layman in on the secret. His family and his friends may not even know enough about it to sympathize with him. Rheumatic fever must be placed in the limelight so that all may see it for what it truly is.

It is my purpose to point out the dangers of rheumatic fever so that you can see how this scourge may be stopped with your help, how greatly your help is needed, and how much further we will get with it than without it. If I startle you, if I rouse you from a state of false security, it is only because the situation is hopeful, hopeful because we know that with your help rheumatic fever will lose much of its sting.

Does rheumatic fever threaten you? Well, all who live in a damp, unsettled climate, are subject to it. Although it is a children's disease, let me remind those of you who have passed unscathed through childhood not to remain too complacent, because adults, too, are subject to it. Many of you who get it will be left with a varying degree of heart damage after the rheumatism has subsided. The kind of a life you lead, the kind of work you are able to do, whether you can marry and have children, and even how long you live will be determined by how hard your heart was hit. This disease is of tremendous importance to all of you, those who have it, those who have had it, those who may get it, and those who care for its victims.

The first effort should be to prevent rheumatic fever. Much can be done. The informed mother and the observant school teacher will be suspicious before the symptoms become generally obvious. This modest effort, based solely on a little knowledge, may prove to be a great boon in reducing the amount as well as the intensity of the disease. By this knowledge you will help the victim too. The sooner his disease is recognized, the better his chances are for a complete recovery. Those of you who know will be more willing to cooperate with the physicians through the long periods of illness and convalescence. You will understand why this disease appears so serious to the physician, who listens to the child's heart.

Relapse can be prevented. The parent must not only care for the child but also observe him continuously after the disease has been cured. She can be the first to know when recurrences may develop. Finally there is a stern problem where your help is essential, when the physician can only stand by and watch. Those children whose hearts have been severely damaged have to build a new way of living. They must learn to be adequate and to be happy with limited physical capacity. If you understand their limitations, if you realize that they may feel entirely well and be too young to appreciate the necessity of re-

straint, you will be in a better position to assist them in making good adjustments.

A bird's-eye picture of rheumatic fever shows it to be fundamentally a disease of children, but adults are not completely resistant to it. It is far more common in "moderate," unsettled climates, but it is also found in warm, dry, even climates. It appears to prefer the poor, the undernourished, and the badly housed but it is not snobbish; it will also attack the wealthy, "hothouse" child. Rheumatic fever promises immunity to no one.

The disease is called rheumatic fever because it usually manifests itself by fever with pain and swelling in the joints. The pain can be excruciating and the joints are often tender. On the other hand, the symptoms may be so vague that they are ignored by a busy mother. There are related manifestations of the same disease, for instance a condition called chorea that also afflicts the young. It is much rarer after puberty. In this condition the unhappy child finds that he cannot be still; he moves, he twitches, he squirms constantly. Too often he is scolded instead of being taken to the doctor for it. This condition, too, like the more classical rheumatic fever with its swollen, painful joints, attacks the heart.

The name rheumatic fever is unfortunate, for it emphasizes the rheumatism instead of the heart disease that so frequently follows. Many children who suffer from the joint pains are left, after their pains disappear, with permanently damaged hearts. The disease may continue to afflict the heart for some time after the obvious symptoms have gone. That is why a co-operative and understanding mother is so vital to her child.

It surprises many mothers to learn that the heart is damaged even though their children's joint pains were of the mildest sort. I have found heart diseases, most certainly caused by a rheumatic fever infection, in many children who could not recollect even the barest symptoms of rheumatism. Many such cases are found among patients with means, as well as those in our clinics. Too often vague aches and other joint symptoms are glossed over as growing pains because a mother does not know enough to appreciate their potential dangers. Children are often stoic and do not complain frequently enough or loudly enough to get the attention they deserve. Repeated complaints of joint or muscle pains by children always call for an examination by the physician, but the mother must not assume that every ache is rheumatic fever. It is just one more good reason for periodic health examinations.

Unlike most serious diseases of childhood, rheumatic fever does not give its victims immunity. On the contrary, second and third attacks are common. If they do occur, heart disease becomes more probable.

How can the damage wrought by rheumatic fever be reduced? Early recognition increases the child's chances for escaping without permanent heart disease. As yet there is no miracle medicine for the treatment of rheumatic fever. Bed rest, good nursing and continuous medical attention are essential to obtain the best results. The bed rest must continue until the disease, as the physician sees it, is well over. This can often be determined by special tests. It is important for the mother to realize this and to help restrain the child. The child may appear to be healthy. He may feel entirely well and complain that nothing is wrong, that he wants to run, to play with his friends. But the mother who weakens and the child who gets his freedom too soon may discover later that this freedom was dearly bought. This presents the child's mother with a most difficult job.

The convalescence from rheumatic fever is often long drawn out. It will do the child worlds of good to spend this trying period in a sanatarium. Unfortunately, there are no more of these valuable institutions than can take care of half the applicants. Thus the seemingly endless period of convalescence may fall on the shoulders of the mother. Understanding will help her and her child through this period too.

The ever present threat of a second attack is a serious one. Colds and sore throats are most frequent preludes to these dangerous episodes. If your child has had rheumatic fever, it is absolutely essential that he be kept in the best of health, that he avoid colds and be ruthlessly kept away from all those suffering from them. In this regard a promise of new hope has recently been made. Drugs that seem to prevent recurrences of rheumatic fever are becoming available. The results already obtained are encouraging, and warrent use under the supervision of the physician.

I have tried to startle you into a realization of your personal stake—the public health aspect of rheumatic fever. Things must be done. Things can be done.

In general the outlook for rheumatic fever is encouraging. True, it damages the hearts of many who suffer from it. But consider this: As things stand, that is, with inadequate and delayed recognition, poor care for acute cases, poorer convalescent care, a large proportion of children with rheumatic fever nevertheless come through their first attack without demonstrable permanent heart damage and continue through life on a normal path. Estimates vary considerably, but some observers have put the number of patients who escape their first attack without heart disease as high as 50 per cent—one half! Many factors help limit the degree of heart damage that rheumatism will cause. Some of these are not understood yet; others that we know about are early diagnosis, complete bed rest, sound nutrition, cheerful environment, prolonged care, convalescent homes, continuous expert medical attention and periodic health examinations.

Which group a child with rheumatic fever will fall into depends on how much of this comprehensive type of care he is able to obtain. His parents must realize this. They must contribute their own part and if they cannot pay for the rest, they must seek it through public sources. Pride does not pay here.

There is no good reason why more children cannot be among those who escape heart disease. It requires the fullest type of co-operation, by the physician, the patient, the parents, and the public.

Do not consider this co-operation a noble deed or a generous philanthropic gesture. It is in your interest that every child with rheumatic fever get the best possible care and the best possible opportunity for complete cure. As the parent you want your child, should he be stricken, to have this chance for a decent, full life. As a parent you must realize that rheumatic fever may strike less frequently and less violently if the proper measures are carried out to prevent its spread and to treat it in the earliest stages when it does occur, no matter who the victim may be.

# EXERCISE

EXERCISE has a very definite effect on body processes, and of special interest are some observations of its effect on heart rate and blood pressure. The hearts of trained athletic individuals pump more blood with fewer beats than do those of untrained subjects. This is particularly true during periods of exercise. We also know that the heart of the trained athlete empties itself more completely with each contraction than does the heart of the untrained person.

For example, let us assume that the heart rate of an untrained average subject at rest is 80 beats per minute. If this individual is given a certain task to perform, his heart rate may increase to as much as 200 beats per minute. After two weeks of systematic training it has been found that the heart rate at rest in this average subject is not particularly changed, although it would probably be about 70 beats per minute rather than the previous 80. However, in the performance of the same task two or three weeks later, the rate is approximately 140 beats per minute instead of 200. Of course, these figures would have normal individual variations, but it is clear that the systematic physical exercise which was carried on by this individual was responsible for producing a better heart as far as its function is concerned.

Concerning blood pressure, systematic training has no effect on the blood pressure at rest. In the performance of work by any individual the blood pressure normally rises. It is of interest to note that in individuals who carry on a systematic programme of exercise the blood pressure is increased much less in the performance of a certain amount of physical activity than occurs in those who follow a more sedentary programme.

Knowledge of the results as given above is fundamental in furnishing the background for any conclusions concerning the value of physical exercise. These conclusions would logically follow:

1. Physical exercise is beneficial not only to the muscles but to all other organs, and consequently to the entire individual.

2. Exercise must be systematic in order to be of maximum value. Infrequent periods of severe exercise are probably not very beneficial, and if too severe, may even do more harm than good.

Just how frequently those who follow sedentary occupations should engage in periods of exercise might depend somewhat upon the daily programme of the individual. Probably the best results would be obtained by engaging in a period of exercise for approximately one hour each day. The next best programme would be to have periods of definite physical exertion three times or even twice a week. Probably a great deal of benefit could not be expected through exercise periods that are engaged in less often than once a week.

3. Strenuous exercise must be led up to gradually. An individual's capacity for easily performing severe exercise is developed by following a systematic programme for a relatively long period of time.

4. The individual who is relatively competent, through his systematic training, has a better circulation and a better heart as well as better general physiology than does the untrained and sedentary subject. His ability to meet physical emergencies is infinitely superior. There are certain abnormalities and diseases in the presence of which uncontrolled muscular work would be contraindicated. Any claim that exercise can cure organic disease is without support. Whether exercise can prevent organic disease is not definitely known. However, as a general thing it is doubtful whether muscular work itself has ever killed anyone, provided it has been properly controlled. "More people die over want of exercise than through overfatigue; very many more rust out than wear out."

It is quite obvious that older people who have not previously carried on much of a systematized programme of exercise should be very careful and never indulge beyond their immediate capacity. Probably it would be impossible for such subjects ever to reach the point of endurance that could have been achieved had the same subjects begun their activities earlier in life.

It has been commonly stated that it is all right for younger people, let us say, below forty-five years of age, to take part in a systematized exercise programme, but people beyond forty-five years of age should slow down and live a sedentary life. It is my opinion that this idea is only relative and is not too well founded. It is entirely possible for men sixty or seventy years of age to carry on a very active physical programme, provided they are free from disease, including heart and blood vessel diseases, and that they had begun their active physical programme relatively early in their lives. Any physical activities, particularly among those above forty-five years of age, must be taken with judgment and should not be so severe or so strenuous as was followed in earlier decades.

Some suggestions might be made as to what type of exercise would be most beneficial. From the standpoint of pure physiology and end results, there would be no choice. In other words, the benefit comes from the actual work done in a given period of time rather than from a particular type of such muscular exertion.

**W. E. MacPherson, M.D.**

Obviously it is better to have the exercise use many muscles rather than a limited group of muscles. Consequently, whether the exercise would be of a more constructive nature or purely for entertainment and diversion would be of little physiological importance. For example, it would make little difference whether a subject performed physical labour on

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the farm or in his garden, or took up mountain hiking, tennis, golf, or some other diversional activity. Indoor work such as might be found in shops, factories, et cetera, is likely to be insufficient. Outdoor exercise is much better and should be of such a nature as actually to produce enough exertion to increase the breathing, heart rate, and the general results of increased activity of the body.

One rather practical point might be mentioned here—if the individual thoroughly enjoys the type of exercise which he follows, he is much more likely to continue it than if it is disagreeable to him.

"Exercise in the open air should be prescribed as a life-giving necessity." "Outdoor exercise is the best; it should be so planned as to strengthen by use the organs that have become weakened; and the heart should be in it; the labour of the hands should never degenerate into mere drudgery."

It is also important to recognize that rest is a very necessary part of a normal programme of living. Exercise and rest must be balanced and regular for the maximum benefits to be derived in the goal of good health. In regular periods of rest and of sleep the physiological responses of the body are somewhat different from those when the individual is awake and active. Such periods of time allow for a rebuilding process to occur. These processes are the opposite to those that occur when one is performing physical exercise; in the latter the body processes are subject to wear and tear. Systematic rest, therefore, makes it possible for one to go through the following period of activity without difficulty

Were one to engage in physical exercise according to the general plan presented, the results of the exercise would be sufficient cause to require him to rest and sleep. In other words, with a programme of well-regulated exercise, needed rest is somewhat automatic, provided the individual gives normal consideration to his sensation of fatigue.

One is reminded of the story of the businessman and reputable citizen in his community, who, greatly worried because of his persistent insomnia, went to see his family physician. His inability to sleep had caused him so much concern that he had decided to commit suicide. According to the story, the doctor told him that as a citizen of excellent reputation he should not submit his family to live under the repercussions which would result from his obvious suicide. The doctor made a suggestion as to a method which might be followed and which

## *REST*

would be a good way for this man to end his troubles. He pointed out to him that as a man of sedentary habits and past forty-five years of age his heart would probably not stand severe exercise. The patient followed the doctors instructions that before he would retire that night he would go outside, giving the excuse to his family that he wanted to take a walk, but instead of walking he would run as fast as he could until he could run no longer. He returned home completely exhausted, and crawled into bed thoroughly expecting that by morning he would be found dead from acute heart failure. However, the next morning he was very much alive; and although many muscles were quite sore, he reflected that he had slept pretty well. Nevertheless, his depression had not entirely left him, and so, under the conviction that he would do a good job of it the following night, he repeated the procedure. The next morning he felt so good and had slept so well that he decided that life was worth living after all, and by following a systematic programme of exercise day by day from then on, discovered that not only did he feel better but his insomnia had entirely disappeared.

The quantity of rest and of sleep varies considerably with different individuals. It is recognized that a longer period of rest is ordinarily required for children than for adults. The general average for adults should be about eight hours in bed each day.

One of the most potent factors in upsetting the programme for normal sleep is the mental attitude of the subjects involved. Our present methods of living and of worrying about living are very disturbing factors in the physiology of the nervous system as well as the rest of the body. This somewhat abnormal attitude not only creates abnormal responses within the nervous system itself but also affects the rest of the body in a secondary way.

Outdoor exercise, particularly of a nature which is agreeable to the mind of the individual, can be very beneficial, not only from the standpoint of the exercise itself, but from the standpoint of relieving the mind of the worries which accumulate from one day to another. Therefore, if the individual takes time off for exercise and outdoor recreation, he places himself in a proper condition to receive the best benefits from a period of rest.

# A NEW OUTLOOK

## on

# ANGINA PECTORIS

LYLE SHEPARD, M.D.

THE literal translation of *angina pectoris* is "strangling breast." The term is applied to a condition that is characterized by pain in the chest, usually under the sternum (breast bone) or just to the left of it. These pains frequently radiate to the shoulders, or neck, or down the arms, usually on the left side; that is, down the inner aspect of the left arm, extending at times down into the little and ring fingers. Occasionally, shortness of breath accompanies the pain.

The pain usually lasts but a few minutes, rarely over fifteen, and may be very severe and vicelike, or mild with simply a sensation like a load on the chest, or a burning. These attacks are chiefly associated with effort, excitement, heavy meals, or exposure to cold. At times the pain may be centred in the upper part of the abdomen and have an accumulation of gas associated with it. A feeling of soreness in the chest may follow an attack.

The most common time of life for these attacks is the sixth decade, but it is occasionally found in the thirties and forties (it is rare before thirty), and likewise in those beyond the sixth decade. Three-quarters of the cases are past fifty years of age. It is found more frequently in men than in women, the ratio being three or four to one. The majority of the women who have angina pectoris have high blood pressure.

### CAUSES

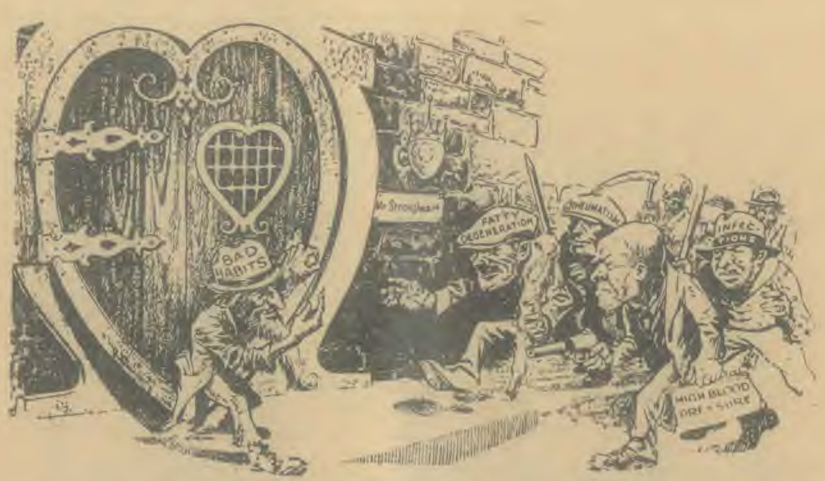
Some have thought that this disease was an evidence or a symptom of coronary disease, which implies a disease of the coronary arteries, these arteries being the ones that supply blood to the heart muscle. Probably that is not always true. The consensus is that these attacks are brought on by under-nourishment of the heart muscle, which may be due to several conditions, the most frequent one being insufficient circulation of blood in the heart muscle, this in turn being caused by a narrowing of the coronary arteries.

A common cause of this narrowing is the formation of fatty plaques, or fat deposits, in the walls or lining of the blood vessels. These tend to become fibrous and harden. Hardening of the arteries can be a generalized affair or simply the narrowing of the arteries at their beginning where they branch off the aorta. This latter condition is frequently found associated with disease of the aorta due to syphilis. It is estimated that more than 90 per cent of those with angina pectoris have significant artery changes.

Aside from these organic causes, any functional factor that decreases the supply of blood or the amount of oxygen in the blood that nourishes the heart, may precipitate an attack. Some of these conditions are a very rapid heart rate, marked anæmia, and conditions where there is insufficient ventilation in the lungs, such as in high altitudes. In fact, an acute or sudden attack may be brought on by any cause that puts an unusual additional strain upon the heart, thereby leading to an increased pulse rate or elevation of blood pressure, such as physical effort, mental strain, excitement, a hearty meal, or a generalized infection in the body. Many are seized while walking, particularly if it is soon after a heavy meal, or against a strong wind.

### CAUSES AND OUTCOME

There are many causes for pain in the chest, but a study of the nature, duration, and location of the pain, with attention to the factors that excite an attack, shows whether the case is one of angina pectoris or not. At times it is hard to differentiate these attacks from those associated with an anxiety state brought on by a fear of heart trouble. In case of




Guard the citadel of your heart by healthful and temperate living. Bad habits let in a horde of evil.

anxiety there is usually evidence of generalized instability with flushing of face, profuse sweating, and a fall in blood pressure; also a careful physical examination shows no evidence of structural heart disease. Areas of tenderness in the chest wall are frequent in the anxiety states, but extremely rare in angina pectoris.

In cases of angina pectoris due to functional disorders—that is, where there is no organic disorder present—the individual should live out the normal span of life. In about 25 per cent of the cases of angina pectoris, occlusion of one of the branches of the coronary arteries occurs, causing a grave disease. In this disease there is a softening of the area of the heart muscle from which the blood supply has been cut off due to the stoppage of the vessel. This area may slowly heal, causing a scar; or it may be so weakened that the heart wall gives way, causing death.

### Treatment

There is danger that those with this disease will become invalids. This should be warned against, and both mental and physical activity should be entered into up to a point just under the amount that will precipitate an attack.

Those who are overweight will do better if their weight is brought down to the normal range. Rest, in the form of cessation of activity will at times bring relief. Ordinarily, lying down is to be avoided, as that tends to increase the flow of blood in the heart, and thus the work of the heart.

Users of tobacco should give up the habit, for it is very deleterious. It constricts the blood vessels of the body, increases the heart rate and tends to generalized nervousness and increase of carbon monoxide in the blood—all of which factors decrease the available oxygen for the heart's use.

Coffee and tea, by their action on the central nervous system of the body, increase the heart rate and add to the patient's anxiety.

### General Precautionary Measures

Some of the measures that will prevent angina attacks are: 1. Live as tranquil a life as possible. 2. Don't overdo things—take the necessary amount of rest. 3. Control all activities and habits that would tend to bring on attacks, such as overeating, strenuous exercise, nervous excitement, or strain; using no tobacco, tea, or coffee; avoiding exposure to cold, winds, and storms; and obtaining sufficient sleep. 4. Use certain medicines wisely.

Several medicines that have a sedative effect, and others that have a dilating effect on the blood vessels are in general use, but warning against some of them because of their habit-forming nature must be posted; namely, barbiturates, alcohol, and morphine. Surgical procedures to give relief in the cases that do not respond to medical management have brought help to some, but the numbers are few, and the cases must be carefully selected.


### Summary

Angina pectoris is a disease that usually attacks persons in the fifties and sixties, and consists of severe pain in the centre of the chest, frequently radiating down the inner aspect of the left arm. With about half there is an intimation of impending doom. This disease occurs in men more than in women.

It is rather generally agreed that the pain is brought on by a lack of blood supply to the heart muscle and an accumulation in the muscle of the waste products that are produced by muscle action. In most cases there is an associated narrowing of the coronary arteries.

The attacks are almost always less than fifteen minutes in duration and are usually brought on by over-exertion of some kind, which throws a greater load on the heart than it can handle. The use of tobacco and tea and coffee are prone to induce attacks. Rest and the use of certain medicines will usually bring relief. Some with angina pectoris will sooner or later have a coronary occlusion, but the majority will live out the normal span of life.

If you have this disease, or think you have it, you should be under a doctor's guidance.

The two sides of a healthy heart, showing veins and arteries leading to and from it. It is a little organ about the size of your fist, but when in health has tremendous strength. And that strength is measured out a little at a time, with great regularity.

# ARE YOU TO YOU

CHARLES LANDIS

Mary Smith was over-sensitive to some of the emotional problems that all of us have to face.

"DOCTOR, you have been recommended to me by my family physician, who just got through sending me to an allergist. This allergist did a very thorough job of testing me with all kinds of pollen, dust, foods, and everything else I might have come in contact with. Everything was negative. My own doctor has previously checked me thoroughly by physical examination and the usual laboratory tests. No one can find anything wrong with me except that at certain times my hands become quite swollen. They tell me you are a nerve specialist! You don't think there's anything wrong with my mind, do you?" Mary Smith, the tense young housewife, sat on the edge of the chair, talking rapidly and hardly taking time to draw a breath. "Of course, I've always been highly strung. I work hard and try to keep my home in perfect order as a housewife should, but my children keep the place torn up. Jim says I take things too seriously, and he tries to get me to relax, but there is so much to do. I never get caught up with my work! If only my hands wouldn't swell and get so tender! I can't use them. By the time the swelling goes down I'm away behind in my work. If only the doctors would find something that I'm allergic to, then I could get treated, and recover. I read in a magazine about getting desensitized to the offending substance."

As Mrs. Smith stopped for breath, Dr. Gordon got his first chance to ask questions and make notes on her replies. He learned that Mary was shy as a girl, wanting to be friendly with others but lacking in self-confidence and the ability to mingle easily. Her mother was domineering and undemonstrative, and had been too busy with her clubs to pay attention to her daughter. The girl had soon learned to keep her feelings to herself, especially feelings of anger, because of the fear of incurring maternal displeasure. For a time she had been bothered with attacks of asthma, but these had subsided when she was sent off to boarding school at an early age and came under the sympathetic guidance of a warm-hearted housemother. During the years at school Mary had gradually gained in self-confidence, and eventually had blossomed out into a friendly, attractive young woman. In college she had met Jim, the young man she later married. Her parents had approved the match because he had come from the right stratum of society.

The attacks of swelling of the hands first started about three years before. Mrs. Smith had vaguely sensed a connection between her attacks and certain happenings in her life, but had given the matter no particular thought. The first time her hands swelled was when her mother, recently widowed, decided to live with her. Fortunately, mamma didn't like the noise her grandchildren made, and left a week after she came. The hands were all right the day after mother departed for Florida. Other attacks followed, always promptly subsiding as soon as the crises had passed. It happened when she had to make a speech launching the local Red Cross drive, when Jim got defeated in a closely contested school board election, when the children got scarlet fever, and when she had to go to court to testify in a divorce case. Sometimes her face, as well as her hands, would swell. After numerous attacks Mary went to the family doctor while her hands were still swollen. He started the investigation already mentioned.

"Your condition," said Dr. Gordon, after he had gathered the above information, "is called angioneurotic œdema."

"I know; that name has already been tacked on to my condition; but what is the cause of it? I'm not allergic to anything!"

"You are allergic to yourself."

"Why, doctor, that sounds silly! How can I be allergic to myself?"

"When I say *allergic* in this connection I am being somewhat liberal with the meaning of the word. A synonym for *allergic* is *sensitive*. You are unduly sensitive to some of the emotional problems that all of us have to face in life. The reason these things bother you more than

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ERSON, M.D.

they do others is that you haven't so far been able to arrive at a satisfactory solution to a number of conflicts that arise in the process of growing up. Situations that make anyone a little nervous make you very tense, because you are still sensitive about certain things. Tension can be expressed in many ways. In your case it is expressed through your skin and the tissue immediately beneath the skin."

"Are you joking, doctor? How could my skin express emotional tension? I know I'm sensitive about some things, and I'm often aware of feeling tense, but I don't understand this."

"Some common examples may show you what I mean. Blushing when one is embarrassed is an emotional expression of the skin. So is sweating under a tense situation, or blanching of the skin in anger."

"You're right, doctor; I used to blush so easily that the boys in school teased me just to see me blush. How it embarrassed me! But I know nervous people who don't blush or get œdema of the hands. Aren't there other ways by which a person may show that he is tense?"

"Yes, as I said before, there are other ways of expressing emotional strain. Here are some of the commoner ones: dry mouth, crying, racing heart, a lump in the throat, a knotted-up feeling in the pit of the stomach, headache, trembling, loss of appetite, and shortness of breath. When one is under great physical or emotional stress such symptoms are to be expected. Similar manifestations are noted in the lower animals. They are a wise provision of nature whereby a threatened individual is put on an emergency basis, ready for fight or flight. When the threatening situation remains for a long time, the physical reactions may become chronic and assume more serious proportions. Such is your case."

"Why is my tension expressed in my hands instead of in some other organ?" asked the increasingly curious Mrs. Smith.

"I'm not able to give you a definite answer. It is thought that each individual's constitution plus the experiences of life determine the exact site for the expression of emotional tensions." The doctor went on to explain to his patient the concept of psychosomatic medicine, which means mind-body medicine, the kind of medicine that every physician should practise, no matter what his particular field. It means the doctor realizes he is treating an individual who possesses not only a collection of organs but also a personality with problems and drives that seek solution and expression.

There were many similar cases that the doctor had seen, cases that showed the varied ways in which people who are allergic to themselves express their tensions. There was the frustrated fellow who had been prevented by family circumstances from putting his not inconsiderable literary ability to work. He became an argumentative pedant, who found fault with the minutiæ that escaped the attention of busier people. Whenever he got into a heated discussion his hands became covered with a crop of pinhead-size blisters, which itched like fire. He could not keep from scratching them and breaking the skin. It would take about a week for his skin to return to normal after a verbal battle.

A clinging-vine type of wife was troubled with attacks of asthma every time her alcoholic husband came home intoxicated. Rarely did he abuse her physically, but he denounced her as a spineless creature who did not deserve his love. He brought up all past irritations and threatened to leave her. When his drinking caused him to lose his job, she had a particularly severe attack which necessitated her admission to the hospital. Finally, through the efforts of friends, the husband stopped drinking. For two years he has been sober, a steady worker, and a considerate husband. The asthmatic attacks gradually decreased in severity and frequency, and for a year she has been entirely free of symptoms.

Migraine, that severe, one-sided type of headache often accompanied by nausea and disturbances of vision, has ascribed to it a long series of causes, none of which is very well understood. Allergy is often the cause, as in the case of the young woman who developed a typical attack of migraine every time she ate

You should consult a physician if you think you have an allergy.

chocolate. Emotional tension has often produced migraine. A young husband who was occasionally plagued with this affliction developed an excruciating one-sided headache when faced with the prospect of meeting his wife's former beau.

A woman who had inherited a large sum of money but did not know how to keep it got a headache every time she had to discuss financial matters with her brother, who had charge of what was left of her estate. She had a great deal of hostility for her brother, though she tried her best to conceal it, even denying that she felt anything but love for him. In this attempt she was partially successful, to the extent of convincing herself that her brother was a good fellow, but that he had such a shrew for a wife—except for "that woman" he would be more lenient with her extravagances! The migraine attacks became more severe as her dependence upon her brother increased. Eventually a headache could be precipitated within a half hour whenever anything unpleasant was mentioned, or when the neighbours next door got into a loud argument. She was allergic to herself, certainly.

Other ailments often considered to be of allergic origin frequently have a strong emotional component which must not be ignored if treatment is to be successful. They include hay fever, chronic colds, mucous and ulcerative colitis, bold hives, itching and burning of the eyeballs, to mention some of the commoner ones.

Then there are disorders not ordinarily associated with allergy but caused in large measure by the emotional tensions found in people who are allergic to themselves. These are stomach ulcers, high blood pressure, chronic appendicitis, overweight, menstrual disturbances, and certain disturbances of sexual function in male and female. Most people recognize lovesickness as of psychological origin, as in the case of the young gallant who had to vomit his supper before every date with his best girl.

Worry and anxiety often bring allergies.

But let us return to Dr. Gordon's office, where Mrs. Smith is asking, "Now that you have explained to me the emotional cause of my trouble, what do you plan to do for me? I have been given antiallergy medicine, which helped considerably but didn't cure me of being allergic to myself."

"You mentioned the antiallergy preparations, such as Benadryl, Pyribenzamine, Thenyllene, et cetera, which are very useful in alleviating symptoms but cure nothing. They neutralize a substance called histamine, which is supposed to be released by the tissues when emotional strain arises or offending substances come in contact with the body. But these drugs do not prevent the formation of histamine; they merely neutralize it, and in so doing, relieve symptoms," explained the doctor.

"I was told that if I had been found to be sensitive to pollen, or some other substance, I could be desensitized to the offending agent by a series of gradually stronger injections of the very thing that causes the trouble. But since I'm allergic to myself, is there any way for me to become desensitized to myself? The very idea sounds like nonsense, I suppose."

"Not nonsense, Mrs. Smith, but a very sensible question. In fact, your family doctor sent you to me for the very purpose of desensitizing you to your emotional conflicts—to yourself, if you please."

Eagerly Mrs. Smith asked, "But how do you go about working on my psychological reactions? I'm tired of being so sensitive, and I'm ready to start treatment right now."

"Treatment will consist of our carefully examining together your emotional life. Many important attitudes and conflicts that you don't now remember will come to your consciousness as we proceed. The exact technique will become apparent as we go along."

"How long will all this take?" she inquired.

"Some people with conflicts that are easily solved may recover with no more than half a dozen interviews. Others, with difficult problems, may need many months of intensive psychiatric treatment."

"You know, Dr. Gordon, I thought psychiatrists treated only mental cases. But I see now that you treat many other kinds of people, such as I, who am merely allergic to myself. When is my next appointment?"

Mary Smith proved to be a relatively easy case to treat, especially since she had the co-operation rather than the hindrance of her husband.

*A favour well bestowed is almost as great an honour to him who confers it, as to him who receives it—Sir Richard Steel.*

She finally learned to face minor family crises without getting tense and expressing her conflict through her skin. Several years have now passed since the last attack of angioneurotic œdema.

Are you allergic to yourself? If so, the experience of Mary Smith may give you a better understanding of your problem. Though not all get as complete relief as this woman, a great deal can be done for many patients.

# YOU AND YOUR

# PROTEINS

S. B. WHITEHEAD, D.SC.

THE simple act of living entails wear and tear for the body fabric. All the time its cellular structures are being broken down and worn out. All the time some body cells are being repaired, renewed, and built. Not all parts of the structure wear out at once, or at the same rate. The cells of the bones, for example, are rebuilt at a slower rate than those of the flesh. The raw materials for this constant body-building come from food, and the chief body-building elements are the proteins.

Proteins are complex molecules of carbon, hydrogen, oxygen, nitrogen, and certain minerals such as sulphur and phosphorus. In the first place they are manufactured by plants which are capable of converting ammonium and other mineral salts obtained from the soil into the protein molecules. Human and animal organisms cannot do this. In consequence, we are dependant upon plants and plant products for our nutrition.

Proteins are present in all plant and animal cells. They form the essential part of the living protoplasm of the cells. But whereas fats or carbohydrates wherever found in the body are similar, proteins found in cells in different parts of the body, even within the same organ, may be different according to the biological specificity of the particular cells.

## The Body's Building Blocks

We know that this is so because chemically, each protein is made up of simpler molecules known as amino acids. These amino acids may be termed the "building blocks" of the body. The first was discovered in 1820. Now we know that there are at least twenty-five, of which twenty-two have been identified. These amino acids may be linked together in myriads of combinations, and thus give rise to the infinite number of proteins to be found in Nature.

As far as human nutrition is concerned, at least eight of these amino acids are so essential that the absence of one of them over a period in the diet would cause death. These essential amino acids must be obtained intact from the food we eat. We cannot build them up for ourselves either from inorganic salts or from other amino acids. It is customary to divide foods into those containing the proteins made up of the essential amino acids, and those which are not. The first group are termed first class protein foods or complete proteins to distinguish them from the rest.

The chief first-class protein foods are those of animal origin—eggs, milk, cheese, meats, etc. The proteins in vegetable foods, although extremely varied, are generally lacking in one or more of the essential amino acids. The vegetarian, therefore, needs to take far more care in balancing his diet than the meat-eater if his real protein needs are to be satisfied. His task is simplified when he includes eggs and dairy products. If he lives on vegetable fare only, however, only a well-varied and carefully balanced bill of fare can prevent his health being impaired in the long term.

## Variety of Foods Essential

The most important vegetable proteins are those contained in whole grain cereals, pulses, and nuts. But every vegetable and every fruit provides proteins, although their amino acid content may be incomplete. By eating a variety of foods, everyone assures himself of his protein needs being more adequately satisfied. In practice, we know that the ideal is to combine a first-class protein food with secondary ones. In combination, the presence of the essential amino


**Milk . . .**

acids enables the body to make better and more complete use of the other amino acids present.

When we eat protein-rich foods, the proteins are digested, first by the gastric juices in the stomach and then by enzymes secreted by the pancreas and the intestinal wall. They are broken down into smaller and smaller molecules, peptides, proteoses, and peptones and finally into their separate amino acids. The amino acids then pass into the blood and are distributed around the body.

### The Functions of Amino Acids

Some go to the cells to be rebuilt as proteins of specific cellular tissues, some go to form hormones, enzymes, and complex internal secretions. The amount and quality of proteins eaten also determine to a surprising extent our ability to manufacture germ-fighting phagocytes (white blood corpuscles) and anti-bodies, and therefore our resistance to infection and such diseases as tuberculosis.

One of the problems which has only been partially solved however, is just how much protein food we need to keep us fit, and the body youthful and strong. People have been known to get along healthily on twenty-two grams a day, but it is generally estimated that the need of the average man lies between 60 and 70 grams per day; of a woman between 55 and 60 grams per day.

Active, growing children need more, and a boy or girl in the teens may need from 75 to 100 grams daily. Again an expectant or nursing mother needs more protein than at other times. During pregnancy she needs 85 grams and while nursing up to 100 grams daily. There is, however, no scientific evidence that hard muscular work requires a greatly increased amount of protein.

### Can We Be Sure of Sufficient Protein?

We have no need to set about numerous calculations on the protein content of our meals to ensure that we have enough. The practical solution is to include at least one protein-rich food in each meal, and add

**Eggs . . .**

to it a reasonable variety of other whole natural foods.

On the other hand, too much protein can be harmful. The body can convert some of it into energy, but in the process, acid-forming substances are released and too much protein is associated with acidity and chronic kidney troubles and high blood pressure. Protein above the body's immediate needs has to be broken down into glucose (used for energy), and ammonia which is then converted into urea. Too much animal protein, which is rich in purines, results in the formation of uric acid and the gout and kindred troubles which come in its train.

Fruits, nuts and cereals . . . provide all the necessary proteins.


# A CLEAN BODY

BELLE WOOD-COMSTOCK, M.D.

LET us play that your body is a house. Back of the forehead, with the eyes for windows, is the parlour of the house, where guests are received and which we would want always to have spotlessly shining and clean. Another important room in our house is the place where food is received and prepared. Let us play that the stomach is the kitchen. Here everything must be in perfect order and ready for use.

There is a modern air-conditioning system that keeps every part of the house supplied with the right amount of pure oxygen that we get from the air. There is an automatic heat adjustment that keeps the house comfortably warm in winter and sufficiently cool in summer. There is also a central pump that sends necessary fluids for cleansing purposes, and also other materials and supplies needed in every room.

Then there is a wonderful electrical arrangement over which messages can be sent from one part of the house to another; and, in connection with it, there are power lines that keep the necessary machinery of the house and its heating system working just right.

The body house is more wonderful and more complicated than any building that has ever been made by man. As the electric current regulates the refrigerator in mother's kitchen and the hot water in the bathroom, so things are regulated in the body house so that we do not have to think about how things are going, any more than mother needs to worry about the furnace in the basement of your new home.

There are many rooms that we do not have time to talk about today, but there is one room that is perhaps more important than all the others. It is closely connected with the parlour that we spoke about at first. In this important room the overseer of the house has his office; and every body house is furnished with this central manager, who is supposed to know how to keep his body house in the best condition. He is supposed to know about necessary supplies and certain conditions that must be maintained so that the house will be kept beautiful and the best sort of dwelling place for its owner.

This overseer is your mind. Did you ever stop to think that every one of us must know enough about this body house so that he can manage it right? We don't want to do anything that would interfere with the electric currents or the heating system, that would allow dirt to get into the pipes that carry the cleansing fluids, or poisons to get into the food, or that would permit the beautiful parlour to become soiled and filled with cobwebs or cluttered with rubbish. We would not want to manage this house so badly that the body kitchen would be filled with bad smells or with ill-prepared or improper food; we would not want the manager to become so careless that he would forget about his important job and let everything go topsy-turvy in this beautiful house.

But do you know that is what too many are doing to their beautiful body homes? The satin-lined corridors become rough and unclean, the electric currents weak and uncertain, the overseer himself cross and stupid and maybe asleep at his job, so that the house that should be a good dwelling place for seventy or eighty years gets rickety and run-down and out of order before it is old. Anyone would want to take better care of a house or a car or anything else, wouldn't you think?

Well, let me tell you—and it is really true—that when people drink beer or wine and other drinks with alcohol in them they are making their body house get old too fast. The worst thing of all is that such a person is making the manager of his house, his mind, less able to remember or to run his house properly than he should be able to. He may become so stupid that he doesn't know enough to keep his house from getting all smashed up and himself from being killed. I'm sure you will want always to keep away from such dangerous stuff, won't you? One of the worst things about it is that once a person has taken a drink of beer it is hard for him to stop. You are safe only if you never take the first drink.

# A Blind Girl and Her Dog

MARGARET UNDERHILL

A SEEING-eye dog named Fawn has been awarded a certificate of heroism by an animal society in Chicago, U. S. A. Why? She saved the life of her mistress.

Fawn's mistress was staying in a large hotel in Chicago when a fire broke out in one of the lower floors. Fawn's blind mistress, who had a room on the eleventh floor, had previously found out, as every person should do in a strange hotel, where the fire escape was located. She memorized the turns of the corridor to the escape and then retired to her room.

In the early morning the hotel fire alarm sounded. The young blind girl jumped from her bed, hurriedly threw on a coat, and adjusted the guiding harness of Fawn—the familiar harness with the U-shaped handle extending up from either shoulder.

The blind girl could not smell the smoke when she opened the door to the corridor because the accident that took away her sight also took away her sense of smell. There was no doubt, however, but that Fawn smelled it, and the girl knew it was there, from the choking burning sensation in her throat. Her confidence in her dog guide was unlimited.

"Good girl, *forward*," she said as she patted her dog. Fawn danced a moment on her toes, sneezed, and proceeded to do her job. She followed the directions her calm mistress gave her, and they reached the entrance to the fire escape. Someone in the milling, hysterical crowd helped the blind girl over the sill, and then she said, "Thank you, Fawn will take care of me now." And Fawn did, guiding her safely, flight by flight, down the steps of the fire escape.

The waiting crowd cheered Fawn and her mistress as they reached the pavement, but if Fawn could have talked she would have said, "We Seeing-Eye dogs are taught to guide our masters and mistresses safely every day, wherever they go. That's our job. A fire can't stop us!" But some persons who were not blind died in that hotel fire.

# RECIPES

## FOOD AND VITAMIN C

THAT vitamin C is most important to good health we learn from the following quotation of a famous doctor who says: "In order to be in the best of health, the body tissues need to be saturated with vitamin C." In order for this condition to exist, a sufficient amount must be supplied every day because the body does not store this important vitamin. Also, vitamin C is easily destroyed by cooking. The water in which potatoes and other vegetables containing vitamin C are cooked should never be thrown away. It should be saved and used in soups and gravies and drinks.

Citrus fruits are the best source of this vitamin. Most fresh fruits contain vitamin C. Tomatoes are a very good source, as are many vegetables. Potatoes, spinach, cabbage, various greens and herbs, which may be eaten cooked or raw are all good sources of this important vitamin. Try these recipes rich in vitamin C. Also eat some fresh fruit daily to maintain good health.

### POTATOES BOILED IN THE JACKET

Select medium sized potatoes, as many as each member of the family will eat. Scrub them well and rinse. Place them in a kettle of boiling water. The water should not cover them entirely. The kettle should be covered while they boil for twenty minutes. They should now be soft. When soft, drain and serve hot. Use the water drained off for gravy.

### POTATO-WATER GRAVY

Melt one tablespoonful of butter or fat in a saucepan. Add two level tablespoonfuls of flour. Stir and cook a few minutes. Add the cooled potato water and salt to taste. Add a little Marmite or Soy-sauce and serve with the potatoes. A little cream, milk, curds, or tomato juice may be added to this gravy for variation. Three tablespoonfuls of sour cream cooked until it forms ghee and the two tablespoonfuls of flour added and then the potato water, is also a very good sauce for potatoes cooked in the jacket.

### SPINACH AND RICE LOAF

One egg; 1 cup cooked and chopped spinach; one cup cooked rice; ½ cup chopped nuts; one onion grated fine; salt to taste; one tablespoonful mint leaves.

Beat the egg in a bowl. Add the other ingredients. Put mixture in a well-oiled baking dish and bake in hot oven for fifteen or twenty minutes. Serve with buttermilk. Serves four.

### CABBAGE BAKED WITH CURDS

One small cabbage, boiled and chopped; 1 cup white sauce; 1 cup very thick curds; two eggs; salt to taste.

Mix the cabbage with the white sauce and the well-beaten eggs. Add the curds and mix. Pour this mixture into well-oiled baking dish and bake for twenty-five minutes in a hot oven.

### WHITE SAUCE

Two tablespoonfuls butter or fat; 2 level tablespoonfuls atta or flour; 1⅓ cups milk; ¼ teaspoonful salt; ½ teaspoonful sugar.

Melt fat. Add flour and stir well. Add milk. Bring to the boil stirring constantly. It is then ready for use.

### BAKED STUFFED TOMATOES

Six firm, ripe tomatoes; ½ cup finely chopped nuts; ½ cup boiled rice; 1 onion minced; 1 teaspoonful savoury herbs; 1 tablespoonful butter or fat; 1 egg; salt to taste.

Cut top off tomatoes. Scoop out centres with a spoon, taking care not to break the skins. Sprinkle them with a little salt. Mix the other ingredients together, beating well. Fill the tomatoes heaping full with the mixture. Place them in a well-oiled baking dish and bake twenty to thirty minutes in hot oven. Serve hot. Serves six.

### POMELO, CABBAGE, AND CARROT SALAD

One small, firm cabbage, grated fine; 4 medium grated carrots; ½ cup thick

curds; ½ large, red pomelo; salt to taste; one tablespoonful sugar; juice of one orange.

After removing outer leaves of cabbage, wash and dry well then grate on medium grater. Mix the curds. Add a sprinkle of sugar and salt with the cabbage and place in refrigerator. Grate the carrots fine. Mix with this the orange juice, the sugar and salt and place in refrigerator. Remove all skins and membranes, seeds, etc. from the pomelo. Cut in small pieces and sprinkle with a little sugar and salt. Place this in the centre of the salad bowl. Lay a ring of the cabbage around this. Then a ring of the carrots around the cabbage. A ring of finely shredded lettuce may complete the salad. It should be served very cold. Serves four to six.



### LETTUCE ROLLS

One cup very thick curds; ½ cup chopped nuts; 1 cup carrots grated very fine; ½ teaspoonful salt; 1 teaspoonful sugar; 1 teaspoonful lime juice; large tender lettuce leaves; 1 red capsicum chopped fine, (sweet).

Combine curds, carrots, nuts and half the minced capsicum with the salt, sugar, and lime juice. Spread the mixture on the lettuce leaves. Roll the lettuce leaves into rolls and place in the refrigerator for two hours or until ready to be served. Then cut the rolls in slices ¼ inch thick with a sharp knife. Serve these slices on lettuce leaves. Sprinkle with the remaining minced capsicum and use French dressing if desired.

### FRENCH DRESSING

Mix two tablespoonfuls of salad oil and the juice of one lime. Season with salt and paprika. Stir well and serve.

### CAULIFLOWER IN CREAM

Break a medium head of cauliflower into flowerettes, 3 large cupfuls, and steam just long enough to be tender. Arrange in a buttered casserole or baking dish, pour one small cup of cream over all and top with one cup of grated cheese. Bake in a moderate oven until a delicate brown on top. The white sauce with or without the cheese can be used.

### CABBAGE IN CREAM

Four cupfuls of finely shredded cabbage. Put into a buttered baking dish. Pour over this one small cupful of hot milk, cover and bake until tender, then sprinkle over the cabbage a teaspoonful of salt and add one small cup of sweet cream, and bake again for ten minutes without being covered.

Cabbage may be steamed and baked with cream and cheese in the same way as the cauliflower.

Serve with a lettuce and tomato salad with a French dressing.

## BOOK REVIEW

*Reminiscences of My War Service in World War I*, by A. J. Schaffer, Subadar Major, I.M.D., Ret'd.—Messrs. E. M. Gopala Krishna Kone, Publishers, Madura and Madras, 49 pages, Re. 1-0-0.

Those who are interested in the life of the soldier on the battlefield, should find interest in this little booklet as well as information about the places and countries to which the author was sent. It is not a treatise on the techniques of warfare, but rather an account of the experiences of a perfectly human medical man in solemn as well as hilarious situations. A mixture of pathos and humour with statement of fact tends to enhance interest in the reading.

# DOCTOR SAYS

1. This question and answer service is free only to regular subscribers.

2. No attempt will be made to treat disease nor to take the place of a regular physician in caring for individual cases.

3. All questions must be addressed to The Doctor Says. Correspondence personally with the doctor is not available through this service.

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5. Make questions short and to the point. Type them or write them very clearly.

6. Questions and answers will be published only if they are of such a nature as to be of general interest and without objection, but no names will be published. Address "The Doctor Says," ORIENTAL WATCHMAN AND HERALD OF HEALTH, P. O. Box 35, Poona 1.

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HERNIA: Ques.—"I am suffering from hernia. I consulted a doctor and used to wear a belt to stop the pain but now I am advised to have an operation. My parents are not willing for me to do that. Please tell me what to do."

Ans.—Hernias are not curable with medicine. They may be controlled by wearing a properly fitted truss. Some years ago injections enjoyed a vogue for a time but in many cases this proved to be a failure. The proper treatment of hernia remains—surgery.

?

ELEPHANTIASIS: Ques.—"A friend of mine fifty-one years old has been suffering from elephantiasis of the right leg. Is there any treatment or diet which will be of help to this sufferer?"

Ans.—Elephantiasis is usually due to filariasis infestation. The best treatment is prevention of recurrence of attacks, for as yet no really good treatment has been developed. The parasites which cause the disease are carried by mosquitoes so the avoidance of being mosquito bitten is the essential thing in avoiding the disease. Mosquitoes are most active at dawn and at dusk. It would be well to wear long sleeved shirts and trousers; apply mosquito repellant lotion to the exposed parts of the body; sleep inside a mosquito net; also have the whole house sprayed with D.D.T. The spray is effective for three or four months.

Any infection or complication of the disease should be treated under the personal direction of a skilled physician. I should advise that you consult the doctors at the medical school in Vizagapatam.

PROSTATIC HYPERTROPHY: **Ques.**—Where can I obtain "Prostacrin" in India?

**Ans.**—Regarding your inquiry as to the availability of the glandular formula, "Prostacrin" we have received the following from the producing laboratory in the U. S. A.

"During the war, you will recall that the authorities enacted a number of regulations which made it very difficult for a United States manufacturer to export to India. Since the War other import regulations have further complicated the situation. It is still too difficult to attempt making our products available in India. It seems a pity but obstacles beyond our control prevent it."

We give the Prostacrin formula below to aid you in finding another preparation of like constituents.

Each 5 gram tablet contains the following: Prostate extract, 2 grams; Orchic substance, 2 grams; Nucleic Acid, ¼ gram; Excipient q. s.

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HAIR REMOVERS: **Ques.**—"Nowadays many preparations are found in the market for removing unwanted hair. Is it good to use such preparations for removing the beard and moustache, or is it harmful to the skin?

**Ans.**—Depilatory preparations for removing hair are not advised as a general practice. Such preparations may injure the outer layers of the skin. Also there is danger of developing sensitivity to the chemicals used and a consequent production of an irritable skin rash. There is nothing better for removing the beard and moustache than the old-fashioned mild soap and razor.

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BALDNESS: **Ques.**—"At only thirty-five years of age I am beginning to lose my hair. Is there anything I can do to prevent baldness?"

**Ans.**—Bald heads seem to run in families and in spite of all the hair tonics, hair restorers and other tonics, procedures and such, the hair continues to fall and baldness or thinning of the hair takes place.

The treatment I recommend has nothing to do with the falling hair:

1. Wash your hair and scalp often enough to keep it clean.
2. Apply an oil dressing if you like.
3. Don't worry about the falling hair. At the age of 65 you will have the same amount of hair after following this treatment as after purchasing the most expensive hair tonics and restoratives.

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INCREASE HEIGHT: **Ques.**—"I am eighteen years old and my brother is fourteen years old. We are both about five feet tall. Our parents are also short people. Is there any way we can increase our height?

**Ans.**—The normal period of growth is from birth until the eighteenth or twentieth year. After that the possibility of increasing one's height is nil, notwithstanding all the advertisements to the contrary.

One cannot hope to be much taller than one's parents and attempts to grow to six feet when one's father is only five feet tall often upsets the balance nature placed in one's body. Many sons, however, as a result of better food than their fathers had, do grow to be two or three inches taller than their short parents.

The main thing for a boy or girl in their early teens is to live a healthful life. Get at least eight hours of sleep nightly, exercise one hour a day in the open air, eat a well-balanced varied diet including plenty of vegetables, fruits, dal, milk, and whole grain cereals.

Between the ages of thirteen and seventeen there is usually a rather rapid gain in height. If a youth does not show signs of attaining adult stature by his sixteenth year he should consult a physician for thorough examination and possible treatment.

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CHEST EXPANSION: Ques.—"I have suffered from pleurisy with effusion on the right side. Now I am twenty-eight years old and my chest expansion is only one inch. Can you suggest some exercises which will enable me to get an expansion of two inches?

Ans.—Pleurisy often leaves some adhesions in the pleural membrane. This would hinder full expansion. Any effort to increase chest expansion must be done gradually, and not much effort at one time. A good method is to take a long inspiration to the count of five twice daily for several days, then gradually increase depth of inspiration by one count until you have attained your maximum expansion.

No, your limitation does not mean shortening of the life span. There are many more determining factors than limited respiration.

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TAPEWORM: Ques.—"One of my friends is suffering from long standing tapeworm. The patient has tried everything he knows, but is no better.

Ans.—Tapeworm is an actual, flat, tape-like worm which inhabits the intestines of man and animal alike. There are four sources from which man may become infected; these are the hog, cow, dog and the rat. The drugs used for expelling the worm are very toxic and must be prescribed with care varying according to the subject treated. One of these drugs is derived from the pomegranate and is called pelletierine tannate. This drug is taken after a day of fasting. The medicine is then taken together with a purgative. There is also an indigenous remedy which sometimes proves very effective when other more standard remedies have failed. "Baibrun" or "Baibraug," obtainable from spice vendors. It looks like black pepper corns. Obtain one tola—180 grains; remove all foreign matter, and pound into a powder. The patient should fast twelve hours at least. Give full dose at night, mixed with curds. Next morning take a dose of Epsom salts. This should bring away the head and all of the worm.

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RINGWORM: Ques.—"What can I do for ringworm?"

Ans.—The skin infection called ringworm is not a worm at all but is a fungus which grows in the form of a circle under the outer layer of the skin. This type of infection is effectively treated by repeated applications of dermal antiseptics such as Whitfield's Ointment.

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ACNE: Ques.—"I am nineteen years old and have been suffering for the past year and a half from pimples which

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leave my skin marked and rough. In spite of trying many medicines they are not cured. Please inform me of a good treatment or diet."

Ans.—The treatment of blackheads and comedoes and pimples is as follows: Pimples are usually infected blackheads and the two should be treated together. First wash the face thoroughly twice a day with warm water and some good mild toilet soap, then take a sunbath on the face for about twenty minutes. Remove the blackheads once or twice a week by the following method. Steam the face for fifteen minutes with a towel wrung out of hot water, then rub in some good grade of vanishing cream or olive oil. Steam the face again for five minutes then remove the blackheads by using a comedo remover, obtainable for a few annas at any chemist shop. Finally wash the face with water and dry. After daily face washing, and after removing comedoes, apply some alcoholic face lotion. Thiazamide ointment is beneficial if the blackheads are infected.

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ATHLETE'S FOOT: Ques.—"I am seventy years old and for the past year I have been suffering from a skin disease on my left leg. This started in my toes in the form of itching and oozing. What course shall I take to rid me of this complaint?"

Ans.—Your description suggests athlete's foot infection with extension up the leg in the form of allergic rash. Athlete's foot is a very obstinate infection and requires persistant treatment for several months even after it seems to have cleared up. Wear white socks and change them daily, boiling those which have been worn before wearing them again. After a hot foot bath at night, dry foot thoroughly then apply Sapronal ointment. Dust Sapronal powder into the sock and into the shoes every morning. This treatment must be kept up for months. Another effective treatment is a daily warm foot bath to which is added sufficient crystals of Potassium of Permanganate to make a wine coloured solution.

**Old Address**

**Please change my address from:**

(Please use block letters)

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Town or P. O. .....

District .....

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Street .....

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## TEN BILLION RELAYS

THE more neurologists learn about the human brain, the more it looks like an electrical calculating machine. And the more engineers learn about an artificial calculating device, the more it resembles the human brain. Last week, Neurophysiologist Warren McCulloch of the University of Illinois tried to describe the brain in purely electrical terms to a New York meeting of the American Institute of Electrical Engineers.

The brain, said Professor McCulloch, is made up of neurons (nerve cells) which are nothing more or less than small electrical relays, each containing its own built-in power supply. The cells burn sugar to carbon dioxide and water, and use the energy produced to keep their outer surfaces electrically charged in relation to their interiors. The electrical tension (voltage) between the two parts is about seven-hundredths of a volt.

### LIKE A RADIO

The nerve cells are laced together, like the vacuum tubes inside a radio, by slender, wirelike fibres (neurofibrils). Some cells have only two fibres; others have several hundred. Like the cells, the fibres are electrically charged.

In its normal state, a nerve cell is like an electrical relay waiting for a signal to send it into action. When the signal (a pulse of energy from another neuron) arrives, the cell "fires." An electrical disturbance starts at its centre and travels outward along all its fibres. When the pulse reaches the end of a fibre and touches a fibre of another cell, it may or may not "fire" that cell too. This selective action is the basis of the brain's operation.

Measured in electrical engineering terms, the neurons are only one-thousandth as fast as vacuum tube relays, but they require much less space and much less power. Professor McCulloch estimated that if a calculating machine had only 10 million vacuum tubes (the brain has about 10 billion neurons), it would take the power of Niagara Falls to operate it and the Niagara River to keep it from overheating. The brain is cooled by a comparatively small river of blood. When awake and in full operation, it raises the temperature of a pint of circulating blood one-half degree a minute.

Calculating machines have been getting better and more complicated, Professor McCulloch told the engineers, but they have a long way to go before they rival the brain. A big calculator with 10,000 vacuum tubes may be a useful machine, but it has no more "intelligence" than a primitive flatworm with about that number of nerve cells. Lecturer McCulloch frankly admits that he cannot explain, in terms of electrical engineering, the brain's creative powers.—*Time.*



## TEACHING SURGERY THROUGH TELEVISION

WITH the installation shortly of special television apparatus, Guy's Hospital, London, will become the first institution in the world to have permanent television as an aid to teaching medicine and the first in Europe to televise operations.

As the skilled fingers of surgeons operate, their every move will be watched by students sitting outside the operating theatre. Television will make possible this new step in teaching surgery and will allow the students to see intricate details as if through the eyes of the surgeons.

A camera will be suspended over the operating table and worked by an engineer from a remote control box. The camera will have three lenses enabling close ups and long shots to be taken, as well as a full view. The apparatus has taken more than three years to design.—*L. P. S.*


# A chap can't be happy and cheerful if his skin is sore!

If your baby cries, he's not just being naughty. He's trying to tell you something's wrong. Often you'll find that his tender skin is sore or irritated — and what he really wants is a little Johnson's Baby Powder dusted on him.

Johnson's Baby Powder is made for the softest skins in the world — it's so fine, so soothing, it makes baby feel comfortable at once. Use it after his bath, and when you change his nappy — or any time he's hot or perspiring.

Buy *your* baby a tin of Johnson's Baby Powder today, and see how good he is when he's comfortable.


*BEST FOR BABY— BEST FOR YOU!*

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ORIENTAL WATCHMAN
SEPTEMBER SUPPLEMENT 1949

# CAN WORDS SAVE THE WORLD?

A. S. MAXWELL

VISITING the United Nations one day, we were impressed with the multiplicity of words employed in connection with its many and diverse activities. In the open sessions one speech followed another in seemingly endless sequence, each one being translated into one or more languages. Behind the scenes, scores of secretaries were busy preparing, translating, typing, and duplicating the many orations, while in the press section the product of all this intense activity was made available to newspaper representatives in vast quantity and variety.

While viewing these piles of documents, on every conceivable subject, the thought came to us. If words—human words—could save the world, then surely it would long since have entered that coveted era of universal peace and brotherhood which has been the dream of man down the ages.

## A TORRENT OF WORDS

Consider all the words spoken in parliaments and congresses as men have striven to improve their lot by oratory, discussion, and law-making. What torrents of words have issued from the lips of statesmen of various loyalties and differing political faiths in the long struggle for social uplift and human betterment!

What infinite pains have been taken in the preparation of agreements, pacts, treaties, and other instruments for the preservation of peace! What endless drafting and amending and copying has taken place in the everlasting search for the perfect document which shall please everybody and offend none! What clauses and sections and sub-sections and explanatory notes, until the whole subject has been taken apart and put together again in such a way as to avoid, if possible, all misunderstanding!

Out of such prolonged discussion and patient labour came the Treaty of Versailles, the Treaty of Locarno, the Kellog Pact, and many another document aimed at settling once and for all the outstanding differences between the nations. With fine words they were written and with fine words they were acclaimed by statesmen and newspaper men, as offering, each in its turn, the solution to man's greatest problems.

Truly, if human words could save the world from war and give relief from all its losses and sorrows, then we should long since have entered this blissful state.

But words have failed us. Words—human words—have proved insufficient to prevent catastrophe. Anger, hatred, envy, untamed passions of the human heart, have swept through them like fire through barricades of straw. Two world wars should have convinced us that words, no matter in what quantity or quality, cannot hold back the forces of evil once they begin to march. Choice phrases and carefully pointed paragraphs can never save peace in a world where sin remains unexorcised.

Truly, some words could help us. Jesus Christ said: "The words that I speak unto you, they are spirit, and they are life." John 6:63. People, we are told, "wondered at the gracious words which proceeded out of His mouth." Luke 4:22. "Thou hast the words of eternal life," said Peter, and he was right. There was power in the words of Christ. When devils heard them they came out of the demon-possessed and left them at peace. When the stormy elements heard them there was a great calm. When the sick heard them, they were healed. When the dead heard them, they sprang to life. When angry men heard them, they were ashamed and sought forgiveness.

What the world needs most today is to hear the words of Jesus again—the beautiful words of the gospel of love which the apostle Paul said are "the power of God unto salvation." Romans 1:16. Passing centuries have not lessened their efficacy. They are as powerful now as they were in that far-off day when Jesus was here among men. Through the words of grace—God's words—He is able to deliver us from our worst problems and dilemmas.

Today, when so many people are trusting in human words, in pacts, and treaties, and agreements, for deliverance from war and disaster, God offers His words anew as the way of salvation. Today His messengers fly "in the midst of heaven, having the everlasting gospel to preach unto them that dwell on the earth, and to every nation, and kindred, and tongue, and people, saying with a loud voice, Fear God, and give glory to Him; for the hour of His judgment is come: and worship Him that made heaven, and earth, and the sea, and the fountains of waters." Revelation 14:6, 7.

Never was a message more direly needed than this. Never were words more precious, more timely, more potent for good. They may not save the world; but they will save many people out of the world. They may save you. For all who heed the gospel of the love of God, all who let His words enter their minds and hearts, will find that those words are transforming, life-changing words; words that can change men of the world into men of God.

## WORLD-CHANGING WORDS

Impressed upon human hearts on a sufficiently wide scale, these words could change the whole modern scene in respect to crime, divorce, juvenile delinquency, irreverence, and Sabbath-breaking; they could bring the nations together in a fellowship of understanding they have never known. And if because of the indifference of the multitudes this

proves impossible, at least these words will gather from among the nations a people prepared for citizenship in the coming kingdom of God.

Of this people it is said: "Here are they that keep the commandments of God, and the faith of Jesus." Revelation 14:12. And what are the commandments of God, but the words of God? (Exodus 20:1.) Therefore those who keep His commandments do but heed His words, and their holy living is but outward evidence that His will is honoured and revered within their hearts. And these words will continue their transforming work from day to day until at last, "kept by the power of God." (1 Peter 1:5), they are presented "faultless before the presence of His glory with exceeding joy." Jude 24.

So it is not more words of human devising that we need today; not more conferences and congresses and leagues; not more speeches and resolutions and treaties; but the words of the living God, believed and accepted, and translated into noble living and righteous action.

Wise indeed is the counsel: "Acquaint now thyself with Him, and be at peace: thereby good shall come unto thee. Receive, I pray thee, the law from His mouth, and lay up His words in thine heart." Job 22:21, 22.

# AN ASTOUNDING PREDICTION

SUNDERA RAJ JAMES

DR. S. RADHAKRISHNAN, the illustrious leader of the Indian Delegation to UNESCO Conference held in Beirut in November last, in the course of his scholarly and spirited address to the Conference made the following remark: "The world owes an incalculable debt to the peoples of this region and my own country has had cultural relations with this part of the world for many centuries. We in India have still with us descendants of Jews who took shelter there when their temple at Jerusalem was destroyed in the first century A.D."

It will be generally agreed that the greatest contribution of the Middle East for which "the world owes an incalculable debt" is its gift of Jesus Christ. Christ was born of the Jews, a people of the Middle East.

The destruction of the city of Jerusalem and that of its famous temple, to which particularly Dr. Radhakrishnan refers, was the fulfilment of a most astounding and solemn prediction of this Jesus Christ. The temple which was the centre of Jewish life and one of the wonders of the world, was destroyed in 70 A.D. by the Romans, who were then ruling Palestine. In one of the most ghastly sieges of history, thousands perished by the swords of the cruel and skilful Romans. Other thousands perished in the furious civil war that raged within the city walls, and still other thousands were reaped down by one of the grimmest famines of all time. The tragic part of this whole episode was that not one would have—or need have—perished if the words of Christ had been taken seriously and His instructions followed.

It was A.D. 31. Jesus was visiting the city of Jerusalem for the last time, just three days before His crucifixion. The city was alive as usual and intensely busy with the affairs of life. He had laboured hard for the uplift of the inhabitants of Jerusalem but they refused to follow His spiritual lead. As He thought of their attitude, tears began to dim

The Seige of Jerusalem.

His saddened eyes and roll gently down His cheeks. "If thou [Jerusalem]," He wept "hadst known, even thou, at least in this thy day, the things which belong unto thy peace! but now they are hid from thine eyes. For the days shall come upon thee, that thine enemies shall cast a trench about thee, and compass thee round, and keep thee in on every side, and shall lay thee even with the ground, and thy children within thee; and they shall not leave in thee one stone upon another; because thou knewest not the time of thy visitation." "Behold, your house is left unto you desolate." Luke 19:42-44; Matthew 23:38, 36.

Fearful and fateful are these words; but they did not fail to fall on the ears of His disciples. "Your house is left unto you desolate," they knew involved the desolation of their temple. "Impossible," they thought. "The Master was a bit hasty. Perhaps He is not acquainted with the massiveness of its structure," they mused. At any rate, they did not want their Master to predict anything which could not take place. So "one of His disciples saith unto Him, Master, see what manner of stones and what buildings are here!" Mark 13:1. Their reference to the "manner of stones" is noteworthy, for immense stones, some of which were sixty-five feet by eight by ten feet, had gone into the giant structure. They thought that the tremendous girth of the stones would cause Him to somewhat revise His prediction. But Jesus solemnly repeats: "See ye not all these things? verily I say unto you, There shall not be left here one stone upon another, that shall not be thrown down." Matthew 24:2.

The company walked on and when it reached a quiet spot on a near-by hill Jesus seated Himself. Then the disciples came to Him privately asking, "Master, but when shall these things be? and what sign will there be when these things shall come to pass?" Luke 21:7. From this question it is evident that the disciples had no more doubts concerning the fulfilment of any point of the prediction, but they were only concerned over the time of the event and how they might know its approach. Christ answered: "Many shall come in my name, saying, I am Christ; . . . ye shall hear of wars and commotions. . . . Great earthquakes shall be in divers places, and famines, and pestilences; . . . they shall lay their hands on you, and persecute you, delivering you up to the synagogues, and into prisons. . . . And when ye shall see Jerusalem compassed with armies, then know that the desolation thereof is nigh. Then let them which are in Judæa flee to the mountains; and let them which are in the midst of it depart out; and let not them that are in the countries enter thereinto. . . . For there shall be great distress in the land, and wrath upon this people. And they shall fall by the edge of the sword, and shall be led away captive into all nations: and Jerusalem shall be trodden down." Luke 21:8-24.

Jerusalem at the present time.

In His answer Jesus was not giving them the date of the event, but outlining conditions by which they might know its near approach and instructions concerning their escape. Just as soon as they saw the enemy encircling the city they were to "flee into the mountains." Certainly a most illogical and inopportune time for an escape.

This entire conversation took place in A.D. 31 but the event in question occurred in A.D. 70 some thirty-nine years after. This prediction of Jesus must have been generally known among the peoples of Palestine, for it is difficult to think that His disciples who themselves were so startled by the prediction and who were strictly commanded by Jesus to proclaim His teachings to all the world, would have kept the prediction to themselves. Furthermore, the book which contains the fullest record of this prediction, viz., the Gospel of Matthew, was available to the people, according to scholarly opinion, for at least thirty-two years preceding the event.

Now let us go to history, the right hand of prophecy. As the thumb is verified and established by its impression, the seal by its stamp, and vice versa, so prophecies are verified and established by history and history by prophecies. True history and true prophecy will not conflict, for God is the Author of both. They are God's instruments to instruct man and to vindicate the Bible, His own book, and Jesus Christ, His own Divine Son.

Josephus, a Jew, was the chief spokesman for this period of Jewish history. Why this should have been so can be readily seen, for this period's history was to be the fulfilment of Christ's prediction, which

would vindicate His assertion as the Son of God. A Jew would be the last person to manipulate historical events in favour of Christ, which would prove Him to be the Messiah.

The years following the prediction were turbulent and bloody ones in the history of Palestine; general unrest in surrounding countries; Rome was shaken by the loss of four emperors in just two years; famines and pestilences were rocking the nations, and Palestine particularly. These conditions embittered the Jews. They launched a campaign to persecute the Christians, perhaps thinking that the Christians were responsible for these conditions. Events in which the Jews on the other hand, did not give rest to the Roman swords, gradually led up to a general revolt in which the nationalists made a quick and surprise attack on the Roman garrison at Jerusalem and inflicted on it a shameful defeat. The fanatical and cruel Emperor Nero would not brook this behaviour of the equally fanatical and cruel Jews. So he fitted up one of the finest Roman armies that had ever gone into action and swung it across the Mediterranean on to Palestine. Father Vespasian and son Titus had charge of the campaign. Jewish blood ran down the pathway of this gallant, furious, and victorious Roman army which swept away everything on its march to Jerusalem. And at last laid siege to the city itself.

Doubts and misgivings were no doubt gaining ascendancy in the hearts of those who knew Christ's instructions regarding their escape and who were eager to carry them out. But it was when they saw Jerusalem compassed with armies they were to run to the mountains. Certainly a most difficult time for an escape; but that was the prediction. How it was fulfilled is thus described by the historian: "Cestius Gallus, after beginning siege, mysteriously withdrew, without any reason in the world, and many embraced this opportunity to depart; a great multitude fled to the mountains." Church historians of the first century say that not a single Christian perished in the siege! It was so because they believed Jesus!

Soon the siege recommenced and no one escaped thereafter. The following quotation on the progress of the siege is enlightening: "Titus placed his main forces on the north and the north-west, leaving the Tenth, 'the Fretensis,' to watch the impregnable east wall from the Mount of Olives. The sound of the battering-rams shook the air day and night. Prodigies of almost maniacal valour were witnessed every day as Jews, rushing out to certain death, flung fire on the war engines and grasped the white-hot metal until their hands were destroyed. Early in May, Titus entered the suburb of the New Town and ordered Josephus, the historian, to bid his countrymen to surrender. The reply was defiance. Titus then built an enormous wall right round Jerusalem, each legion being responsible for a section of it, and famine sat upon the walls of Jerusalem and mocked the grotesque sufferings of the people. Weary of flinging thousands of dead bodies over the walls into the valley, the inhabitants began to stack corpses in the cellars and in the rooms of large houses. Five hundred deserters and captives were crucified each day until the hills bristled with this ghastly forest of crosses, and wood grew scarce."

Here is a graphic description by Josephus of the grim famine that wasted the city: "Now of those that perished by famine in the city the number was prodigious, and the miseries they underwent were unspeakable; for if so much as the shadow of any kind of food did anywhere appear, a war was commenced presently, and the dearest friends fell a-fighting one with another about it, snatching from each other the most miserable supports of life. Nor would men believe that those who were dying had no food, but the robbers would search them when they were expiring lest any one should have concealed food in their bosoms and counterfeited dying." The famine was so fierce that hunger drove men to eat sandal straps, leather girdles, straw, grains in the excretions of animals, and in one case a mother cooked her own dear child!"

But no suffering was keen enough to abate the fanaticism and fury of the defenders. The Romans held out all the inducements for a "cease-fire" that their wisdom could devise; but all to no avail. And the war raged until, across the walls and through the streets rolled the Roman army, and after bitter and bloody struggles, into the temple courts. The Roman heavy arms began battering on the giant walls of the temple. These were tense and exciting moments for the invaders. At last a mad Roman soldier, as though inspired by holy zeal, thrust a burning brand into the temple and fire ran wild through the building. Titus waved and shouted to his men to quench the fire, but passion for plunder and hot hatred for the Jews were too strong for the Romans to obey even Cæsar! "And thus," says Josephus "was the holy house burnt down without Cæsar's approbation." Evidently the Romans were not keen on destroying the temple. Had the Jews been wise and come to some terms with the invaders their beautiful temple may have been standing even today. One would have thought that the fanaticism with which the Jews held the temple would have saved it, but that was what eventually brought the temple to dust.

The prediction however was that "there shall not be left here one stone upon another, that shall not be thrown down." Matthew 24:2. Titus held a congratulatory parade at which he conferred honours and distributed gifts. His last orders to his men were, "Raze the very foundations." In carrying out this order the men were spurred on by the common belief that the city and temple contained immense wealth. This was so difficult an accomplishment that even Titus was urged to say: "We have certainly had God for our helper in this war . . . for what could men or machines do toward throwing down such fortifications as these!"

Thus the ancient city of Jerusalem and its beautiful temple were blasted out, burnt down, and ploughed up, the Jews were subjected to indescribable horrors of suffering and death and at last "led away captive into all nations"; all taking place in that generation, just as Christ had predicted forty years before the event.

Of every "it will happen so" of the predictions of Jesus Christ on the destruction of the temple and city of Jerusalem, history says "it happened so." Christ was not only a Teacher of ethical and spiritual truths; but He was also the Predictor of the future. There are and have been many outstanding teachers of ethical and spiritual truths, but not one of them a predictor of the future, for God alone can do this. God regards predicting ability as the supreme test of divinity as may be understood from the following Scripture text: "Shew the things that are to come hereafter, that we may know that ye are gods." Isaiah 41:23. Prophecies reveal God's great wisdom, power, and love.