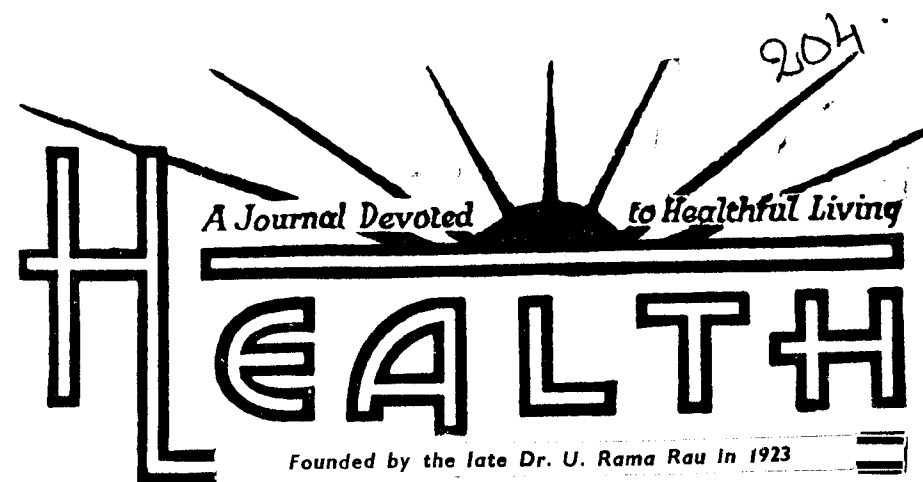




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ACCIDENTS AND THEIR PREVENTION

THE special theme for the World Health Day of this year (7th April 1961) was "Accidents and their Prevention."

Accidents cause more deaths than infectious diseases. In many countries of the world, they kill more young people of the ages of 5 to 18 years than all other causes put together. The most frequent fatal accidents are due to motor vehicles (36%), falls (22.1%), drowning (8.6%), other means of transport (6.2%), fire or explosives (4.6%), poisoning (3.8%), and fire-arms (1.3%).

The kitchen, the stairs or the bedroom of a modern house hold more dangers than 'the fastest car or plane, the steepest mountain, or a ship in a storm.'

Simple things like a tube of aspirin left lying on a table, a kettle of boiling water, a forgotten safety razor blade have

in some countries of the world, been making more cripples and kill more children than will poliomyelitis and tuberculosis together.

Care and vigilance.—Considering all the manifold dangers, what is surprising is that there are not many more home accidents. Today, the safety of the home is a question of national dimensions. This is the point of view of the Royal Society for the Prevention of Accidents, whose home safety department extends its activities throughout the United Kingdom. "Our great problem" says Miss BARBARA NAISH, who directs this vital department, "is not to lose touch with everyday reality, but to keep going with confidence even though we have no accurate way of measuring our results." Needless to say that this is also our great problem in India. The

people whom it is important to reach are those who are naturally careless. It is usually the very poor who need help most.

Serious burns.—Some problems require a massive attack on old ingrained habits. In 1958 for example, the Royal Society for the Prevention of Accidents, launched a nation-wide campaign to provide all open fire places with safety screens in order to bring down the number of serious burns.

Similar campaigns could well have been launched in many other countries, for a bad burn is one of the most horrible accidents. The pain suffered by the victim, whether burnt by fire, acid, boiling water or steam, is only the first of his trials. Then comes treatment lasting for about three months, while subsequent operations and grafts are sometimes spread over several years. Every year, five to ten times as many children as adults are estimated to suffer burns.

The problem is even more severe in some of the rapidly-developing countries because of the widespread use of gas, electricity, and explosive substances (acetylene, neon, butane or propane lamps, fireworks, etc.). Everywhere (India is no exception) boiling liquids claim innumerable victims.

Poisoning accidents.—Again it is the children, and to a lesser degree the old people, who are the main victims. Unlike other home accidents, poisonings generally increase in number with a rise in the standard of living. A

study carried out in 1955 by the New York Poison Control Centre showed that half the victims of poisoning are under the age of 20, and three-fourths of these are less than 4 years old, with children between the ages of one and two leading the sad procession. This pattern, with slight modifications, applies to India and to all other countries of the world.

Enforcing strict regulations concerning the description and packing of poisonous substances is one obvious way of helping to prevent poisonings in the home. But even here much remains to be done. International standards are urgently necessary in the description and labelling of poisons, whether they be medicines, cleaning fluids, insecticides or any other dangerous chemicals. Paint used inside the house should be free of lead, as should all toys.

Falls, burns and poisonings are not the only risks that must be guarded against. The greatest enemy of family safety, and one from which the others stem, is negligence, with its corollaries, untidiness and dirt. A badly-lit room may cost much more than would a brighter lamp. A properly insulated electric plug, a step repaired in time, a safety bar or wire netting fixed in the window—it is on "details" such as these that the life of a child may depend.

We hope people would realize that accidents have become a leading cause of death, disablement and economic loss and that they can be prevented.

Intelligence Quotient: What Does it Mean?

JOHN LORBER, M.D.,
*Reader in Child Health, the University
of Sheffield*

CAN intelligence be measured? Is it entirely inherited, is it the outcome of environment, or is it a combination of both? Is it constant throughout life or does it vary? Can you forecast with any certainty an infant's future intelligence?

Intelligence can be measured. What we measure is the person's ability to learn, not his knowledge. Theoretically education and factual knowledge should not influence the result of the intelligence test, though in practice it is hardly possible to devise tests that are quite independent of learning.

Intelligence is measured by the I.Q. test, I.Q. stands for 'Intelligence Quotient' and is an expression of an individual's intelligence compared with the average intelligence of persons of the same age. This average intelligence has been worked out by examining very large numbers of children and adults at all ages, using a wide range of carefully designed tests.

From these tests, it is possible to work out what can be expected from a person of average intelligence. An average person's mental age is then said to be equal to his actual age and his I.Q. is 100. If he scores higher, his mental age is higher than his actual age, and if he scores

lower than his mental age is lower. Exact tables are available for working out the mental age from the test scores.

The I.Q. is defined as the mental age divided by the actual age and multiplied by one hundred. So, if a four-year-old can perform the tests that an average five-year-old can accomplish, then his mental age is five, and his I.Q. is 5 divided by 4 and multiplied by 100=125. But if a child of five can only perform the tests of an average four-year-old, then his I.Q. is 4 divided by 5 and multiplied by 100=80.

Mental age.—An I.Q. of 100 does not mean that a person is clever, only average. A much higher I.Q. is necessary to get into a grammar school or an university. A child will need an I.Q. of 115 or more to get into a grammar school. Only about 20 per cent of the population have such an I.Q. and only some 3 per cent have an I.Q. over 135. Children with an I.Q. of around 80 or 90 are rather dull and those with an I.Q. below 80 cannot, as a rule, benefit from everyday education at an ordinary school.

It is important to know a child's I.Q. if his progress at school is poor. Perhaps he is being pushed beyond his ability, and hence cannot learn. On the other hand, if his I.Q. is good, then you must look for many other possible causes of poor progress. Indifferent teaching, poor health, emotional problems, or some special difficulties with reading or arithmetic.

The I.Q. test does not measure common sense, personality, the



ability to get on well with other people, or diligence. You need them all for success in life. A child with a higher I.Q. will not necessarily go further in life than a less well-endowed one if any of these other attributes are not well developed, but he has a better chance.

The intelligence, and the I.Q. of a person, is partly determined by heredity and partly by upbringing. It is impossible to assess their importance exactly. Unfavourable environment and lack of opportunity do retard intellectual development. Children who are brought up in institutions are far duller than those of similar background who are brought up at home.

Good upbringing.—Emotional deprivation also retards mental development. Good upbringing tends to lead to a higher I.Q. than heredity might suggest. This is particularly well illustrated in adopted children. The true parents of adopted children tend to come from a lower social and economic class than the adopting parents. Adopted children have an I.Q. which on average is as much as twenty points higher than that of their true parents.

Intelligence and I.Q. are not constant throughout life, even if there is no major change in circumstances and even when there has been no illness to retard a person's development. In most people the I.Q. only changes a few points up or down. Greater variations may occur in very bright or in very dull people. Fluctuations of as much

as twenty or thirty points have frequently been found. This means that a young child of exceptionally brilliant promise may not fulfil it as he grows up, though his I.Q. will always be above average. Very dull or average children sometimes surprise their parents and teachers by a spectacular improvement in their I.Q. and achievements. These are the slow starters.

There is considerable difference of opinion on whether it is possible to forecast an infant's or small child's future intelligence by testing his I.Q. early in life. The I.Q. will change as time goes on and environment will further influence a child's intellectual capacity. Nevertheless, if intelligence tests are carried out in infancy with great care, they are fairly accurate. It is very unlikely that an infant who does well in his test at a few months of age will ever be retarded, unless illness interferes with his progress. It is equally unlikely that a very retarded baby will be of normal intelligence later in childhood or adult life.

Late developers.—It is essential to take certain precautions when doing intelligence tests at any age, but especially in infants. No reliance should be placed on a single examination. The baby should be well at the time of the examination, and as much as possible needs to be known about him and the way he has grown. If he seems to be backward he may have unsuspected physical defects. It is easy to miss deafness or even

ness in a small child, although it is also easy to make the opposite mistake of diagnosing blindness when a child, in fact, is just backward. If a child is late developing in only one way, he is not backward. Children who either walk late or speak late or acquire bowel-control late, but who are otherwise normal, are *not* retarded.

Intelligence tests in early infancy are most valuable in babies who are going to be adopted. They should never be omitted.

So, to sum up, intelligence depends on heredity and on environment. It can be accu-

ately estimated by careful testing, taking several factors into account. It is not possible to improve the score by more than a few points at one of these tests by specially preparing for them. There is no doubt, however, that in an intellectually, emotionally and economically good home, a child's I.Q. will be higher than if these conditions were rather unfavourable.

A good I.Q. does not necessarily lead to success or happiness. A happy, well-adjusted personality and the ability to get on well with others is also needed to achieve this.—(*Family Doctor*, January, 1961).

MEDIATRICS

(Or the Care of the Middle-aged)

H. F. ELLIS, London

Attitude to Youth

THE young customarily resent being reminded of their youth. The old react sharply to any implied suggestion (helping on with overcoats, cutting up meat, etc.) that they are getting on. Middle age as ever is ground between the upper and the nether millstone, being regarded by the old, particularly when related by marriage or waiting to get on a Board, as not yet fully adult or responsible, and by the young as hopelessly *passe* and out of touch with the modern world. This dual pressure leads to a great deal of grinding of false teeth, often in secret and alone.

We are not here concerned with attitudes towards the old; an opportunity may occur later to suggest means of combating their ineradicable assumption of superior wisdom. This paper deals with the Young, of the two far and away the more serious scourge and probably responsible, whether individually or in the mass, for quite sixty per cent of the emotional derangements and stress diseases of the middle-aged.

We have first, as in any successful campaign, to recognize the enemy, to understand his strengths and weaknesses and to spot the weapons in his armoury most likely to do us harm. The characteristics of youth, then,

so far as they bear on the conflict with middle age, can be crystallized into the following ADOLESCENT BELIEFS:—

1. *That people over thirty have practically no further interest in anything.* The solitary admitted exception to this loss of the capacity for enjoyment is that parents like to hear what their children have been doing.

2. *That the middle-aged no longer want to own things.* Everything belonging to parents is *family*; what belongs to children is *theirs*. (Cf. the cult of one-sided borrowing).

3. *That you have a right to enjoy life while you are young.* (This is of course the corollary of the belief, at (1) above, that when you aren't you can't).

4. *That the young are ipso facto winning and likeable.* Thus no special effort is called for on their side.

If we keep these basic characteristics firmly in mind we shall have a better chance of at least holding our own.

Consider the word *Neania-phobia*, the technical term used to describe the condition of those who, consciously or unconsciously, cannot adjust themselves to young people. There is no difficulty about the first part of the word, which comes of course from the Greek *Neanias* a "youth"; but it is often forgotten that the root meaning of *Phobos* is not "dislike" but "fear." One breeds the other, certainly, but therapeutically we are interested in first causes, and there is no doubt that the real trouble with many middle-aged people is Nag's Disease*. At the bottom of their cold hearts they are afraid.

*A colloquialism of the consulting room. From Kipling's story of Rikki-tikki-tavi. It has nothing to do with wives or horses. (Nag).

The complaint of Q—, one of my patients, is all too typical. "I get on pretty well with young people nine-tenths of the time," he told me. "My children will have friends in and we'll all sit there talking and laughing, you know, without any awkwardness, and then suddenly there'll be an embarrassed silence, covert looks are exchanged and I realize that I have said something middle-aged." The italics are mine. As originally delivered the terribly revealing phrase was spoken without emphasis, which in itself indicated that Q—had reached the condition known as "Abject B," when it is taken for granted that to say and do middle-aged things is wrong.

Defeatism of this kind, which has grown very rapidly owing to the post-war deification of Youth, is very difficult to treat. The patient must be made to realize that it is right and natural to say middle-aged things in middle age, particularly when talking to children. The chances are that a middle-aged remark will be good. It is for the children to feel embarrassed and ashamed when, as so often happens, they are guilty of saying *young* things in the presence of their elders. The lesson must be ceaselessly inculcated that the crown and goal of middle age is to be as *unlike teenagers as possible*.

What then is the right attitude to adopt towards the young? First, it must be *positive*. There must be no truckling to the self-importance of

youth. The kind of behaviour so often seen in a Fathers' XI going out to play against their prep.-school sons, the exaggeration of their infirmities, the loud facetious talk of their incompetence—these are *inexcusable errors of tactics*. Bad as they may be at cricket these men are almost certainly better than their stripling sons, and should not throw away the opportunity of proving it. Secondly, abominable heresy that youth is easily hurt, and that irreparable damage may be done by an unkind word, must be rooted out of their minds. History shows that there is practically no youthful trouble that cannot be put right by the gift of a fiver or in extreme cases a bicycle. Above all, there must be a resolute rejection of any treacherous suspicion that *youth knows best*—about life, art, morals or manners. It would be too much of a fluke to suppose that two successive generations should be exceptionally gifted in this way.

Anti-youth clubs:—So many vested and other interests nowadays exist to plug the importance, talents, rights, wrongs, superiority, clothes sense, sensitivity, achievements, frustrations and delinquency of youth, that many middle-aged people are feeling the need for a corporate counter-movement to restore the balance! At long last Societies for the Middle-aged, Anti-Youth Clubs and similar organizations are springing up under the guidance of devoted health-workers to meet this need. The sense of solidarity, of belonging, the consciousness of the importance of their own age-bracket, the feeling of unity and purpose that comes to men and women in their forties and fifties thus enabled to meet together once or twice a week, swap stories about Teddy Boys, and openly avow that they have had about as much as they can stand of Young People, has a very high therapeutic value.—(*Punch*, January 11, 1961).

STOPPING TOOTH DECAY

THE natural way to keep teeth clean and healthy is to eat hard food with plenty of fibre in it. So advises Dr. Robert Oakfield in the *Farmer and Stockbreeder*.

Apparently we eat far too much soft, starchy, and sugary food which gets caught between the teeth, where germs start fermenting and forming acids.

The acids work their way into any small crevice and cause

decay. So after each meal, eat a hard apple or a stick of celery to remove this soft food debris.

In addition, of course, use a tooth-brush at least twice a day. But remember that the purpose of a tooth-brush is not primarily to whiten and polish teeth (whiteness is not always a sign of soundness), but to *clean* them.—(*World Digest*, January, 1961).

History of Chemotherapy of T.B.

RETROSPECTIVE observations on tuberculostatic treatment furnish us with new data on its development in the past, its present state and its likely evolution in the future. Moreover, from old documents we learn that the drugs used by doctors in the Middle Ages to combat phthisis sometimes achieved success although, according to our present-day knowledge, they did not have any therapeutic value. This was without doubt due to certain psychological factors which today we are careful to strictly exclude when we wish to evaluate the real efficacy of any therapeutic substance. Chemotherapy of tuberculosis presupposes that the pathogenic organism is known. This condition was fulfilled on March 24th, 1882, by the discovery of the tubercle bacillus by Robert Koch who, eight years later, made known a series of substances, amongst others various dyestuffs and some metal compounds, which had the property of inhibiting growth of tubercle bacilli. In the decades which followed, preparations of gold and copper were used in antituberculous therapy which, however, were never tried out in animal experiments, nor did they satisfy strict clinical criteria.

A new era in chemotherapy began in 1932 with the discovery by Domagk of the bacteriostatic properties of sulphonamides. The inhibitory action of sulpho-

thiazole on the tubercle bacillus was discovered, as well as that of the sulphones, the clinical use of which, however, could not be envisaged because of their toxicity.

Antituberculous treatment underwent a dramatic evolution during the years 1944/1946, a period which saw a veritable 'eruption' of chemotherapeutic research. In Germany it was T.B.1 (Conteben), discovered by Domagk, which was first used for patients suffering from severe, rapidly progressive forms of tuberculosis and, despite these unfavourable conditions, Conteben succeeded in reducing lethality from 40% to 4%; besides its tuberculostatic effect, it presented an antiphlogistic effect similar to that of cortisone. At the same time, Lehmann discovered para-amino-salicylic acid PAS to be a suitable drug for tuberculosis, able, in high doses given in the form of intravenous infusions, to influence even miliary tuberculosis, (galloping consumption). However, all these discoveries were surpassed by the discovery of Streptomycin by Waksman which, for the first time, could definitely control miliary tuberculosis and specific meningitis. Also at this time interest arose in many centres in the amide of nicotinic acid. In this connection, Domagk, Fox, Bernstein and co-workers used, independently of each other, an intermediary product, isonicotinic acid hydrazide which, in its tuberculostatic effect surpassed all the known drugs. This drug was to reveal itself as the most active agent in antituberculous treatment.

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FEELING LIVERISH?

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Between 1944 and 1952, the nature of the specific treatment of tuberculosis was completely changed by the introduction of the so-called classic tuberculostatic drugs. In the years which followed, attempts were made to produce numerous derivatives from the substances already known, derivatives which, however, could not compete with the classic drugs.

Clinical experiments carried out in the Department of Tuberculosis in the Medical Clinic of Freiburg University from 1946 to 1958 have shown that, in contrast to purely conservative treatment, cavity closure and sputum conversion were obtained in the proportion of 1.8% and 5% respectively with the use of Conteben, in the proportion of 12% and 29.8% by the use of P.A.S., which figures reached 18% and 42% on the introduction of Streptomycin; finally, I.N.H.

produced an increase in the rates, rising to 37% and 61%.

With regard to the effect of chemotherapeutic drugs on mortality from tuberculosis, it is interesting to note that the mortality-rate of tuberculosis in women has shown a continuous decline, according to German statistics, since the year 1877. Until now, this curve was determined exclusively—not taking into account the negative influence of the wars—by the biological law of elimination of individuals presenting no or very slight resistance to tuberculosis. Only since 1949 has a more rapid fall been observed in the mortality-rate which must be regarded as the result of chemotherapy, perhaps because of the fact that patients offering a low resistance were kept alive—at least some of them—by means of tuberculostatic treatment.

FEELING LIVERISH?

THE liver is the body's warehouse, factory, and heat-generating plant. It stores iron and copper (needed for the production of red corpuscles) fat and vitamins. It manufactures bile, anti-thrombin (to prevent blood clots) and vitamin A. It also "de-toxicates" any poison which may be taken up by the blood from the intestines.

One of the commonest complaints attributable to a faulty functioning of the liver is hyperæmia or congestion. Kenneth Basham writing in *Here's Health* describes the symptoms as

follows:—A dull aching and sense of fullness over the liver area, with coated tongue, indigestion, poor appetite, together with an ache in the legs. Usually the patient is constipated and there may be nausea or vomiting.

In mild cases (for all acute attacks should be treated professionally) the immediate remedy is extreme moderation in eating, cutting out all spices and, of course, alcohol. But better still is a complete twenty-four-hour fast, broken only by an occasional sip of water.

TRUE SYMPATHY

Mothers with Handicapped Children
Do Need Real Help

GRACE LUMLEY, *Oxford*

MOST decent people are indignant, and rightly so, at cases of child cruelty, especially when reading of cruelty to a handicapped child. Every one throws up his hands in horror, his heart is wrung with pity for the victim, and he hurls indignant words at the maltreater.

But then what? Most people then comfort themselves with the complacent attitude, "Well, I could never do a thing like that." But how do you know that you couldn't?

If your children are healthy and happy, you just cannot know what a tremendous effort is called for, in perpetually caring for a backward or invalid child. Just imagine bearing, day in, day out, and often night in and night out, the burden and responsibility of having a member of the family permanently sick. It is bad enough if the invalid is a grown-up. But imagine what it's like if it is a child or baby.

To the superhuman physical and mental effort is often added the terribly demoralizing and frustrating effect of knowing one's efforts are leading nowhere. That however hard one tries, and however great the sacrifices, the ultimate goal is so often death, or permanent invalidism.

In my early married days, I never gave this situation more than a passing thought. Like other people, I just condemned the cruel parents outright. White was white, black was black, and a person who ill-treated a child was out-and-out wicked. But that was only until the birth of a severely handicapped daughter a few years later.

She was not our only child. Coping alone with two normally healthy children as well, and trying to make the three into a happy family was at times quite impossible.

Mostly the strong had to suffer for the weak. Sometimes my patience was at a very low ebb after countless sleepless nights, and my sick child got "short shrift" as well.

I really did have all my work cut out to cope with the sheer physical efforts involved, and my nerves were often very taut. So that when some kindly, but frankly curious, passer-by or fellow bus-traveller wanted to know the full and intimate details of how and why my baby was like she was, I was often apt to give a very short and sharp answer.

Sometimes the burden was so great, that I could fully see how possible it was for the normally kind and loving mother to snap under the strain.

There are limits to what a person can do and stand. I myself often felt like this, and I am sure that without the wonderful moral and physical support of my husband who was devoted to our poor little daughter, I could often have gone completely berserk and

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TRUE SYMPATHY—GRACE LUMLEY

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lashed out hysterically. Yet I consider myself to be, on the whole, a very patient and serene type.

Since our daughter died some four years back, I have often shed a few tears, remembering how harshly I spoke to her at times. But as I've said, there are limits. And in the wisdom gained from my experience, I can now see that it is quite possible for a parent to love a child, yet in a moment of snapped nerves, beat, or even kill that child.

I do suggest that much could be done for those parents who struggle on, trying to carry their own burdens. Could we not have a few homes and creches where such a child could be left for a few hours while mother does some shopping or housework?

Many mothers long for the happy day when their normal healthy, often naughty child can go off to school and be "out of the way" for an hour or so. But just think of the prospect of having a child who not only can never go to school but who also cannot walk, go to the lavatory alone, or generally amuse itself. Not just for five years, but

may be for ten or fifteen, or longer.

How wonderful then, to have a place where one could take and leave the child for a few hours in responsible hands, knowing that one could relax and do the shopping freely without being on edge the whole time. Or take one's other children out in the park, and give them some much-missed motherly attention.

I can tell you from my past experience that it is the most wonderful thing in the world to hear somebody say, "Couldn't I look after baby for you for a while, while you do some housework?" or "Shall I take your little girl out for a while?"

How much more really sympathetic this is than "I do feel sorry for you," or "I just don't know how you manage."

So next time you read one of these child-cruelty items in the news, don't just condemn and forget. Please look around and see if any of your neighbours have a fretful or sickly child that is getting them down, and offer the helping hand. Then perhaps you will help someone stay out of the news!—(*Family Doctor* December, 1960).

Clear Death Out of Your Cupboards

Death lurks in your medicine chest. In two out of every three homes in Britain on high shelves, in medicine chests, and in drawers there are an average of a hundred white, pink, green or yellow tablets that could bring death or serious illness. They were prescribed, perhaps, for sleeplessness, obesity, head-aches, nerve troubles or colds and fevers. After you were fit again, they were no longer needed and were allowed to accumulate.

But in the hands of children or unthinking strangers, they can be as lethal as wartime souvenir revolvers that have brought death or injury to scores of relatives of soldiers, who could only say: "I never knew it was loaded."

MENTAL ILLNESS :

MYTH vs. TRUTH

1. *Myth* :—Mentally sick people must be kept under lock and key.

Truth :—Many hospitals are adopting an “open door” policy whereby mental patients get as much liberty as other hospitalized persons. Moreover, it has been found that locked doors create symptoms which disappear when such restrictions are removed. Freedom relaxes patients ; helps them to get better.

2. *Myth* :—Only adults are afflicted by severe mental illness.

Truth :—At least 4000 children and young adults are admitted to mental hospitals every year for serious mental disorders—and this is only a fraction of those who need care.

3. *Myth* :—Mental illness is hopeless.

Truth :—Seven out of 10 mental patients can come back, given adequate treatment. Recovery rates in recent years have increased. For the first time in history, mental hospital population is decreasing.

4. *Myth* :—Mental illness appears suddenly without any warning.

Truth :—Usually there are early signs which trained people can detect long before mental illness becomes serious. Early treatment usually means early recovery.

5. *Myth* :—There is only one kind of mental disease.

Truth :—Mental disease covers a very wide number of disorders and they range from slight, momentary attacks to very severe cases in any other type of illness.

6. *Myth* :—The new tranquillizing drugs are a “cure-all” for mental disease.

Truth :—They do help. In many cases, they bring dramatic recovery. But they don't work with all patients nor with all mental diseases. They are most effective in conjunction with other therapies, particularly psychotherapy.

7. *Myth* :—The mentally ill are usually violent and dangerous.

Truth :—Most mental patients are quiet and harmless. Statistics prove a recovered mental patient is less likely to get into trouble than the average citizen. (*Today's Health*, January, 1961).

The Danger of Folic Acid

Consider the metabolic quirk that makes a poison of folic acid. If a patient with pernicious anaemia is given folic acid instead of vitamin B₁₂, his anaemia is corrected, but the central nervous system changes continue to progress, in fact they may be accelerated.....It is easy to decide that the peevish old lady who complains of fatigue should be given a “tonic” of some sort, perhaps vitamin pills. But wait a moment. Once in a while, the peevish old lady has pernicious anaemia and because of the folic acid in her vitamin pills she may spend the rest of her life incontinent of urine and faeces, fast in a wheelchair.....The problem is not a large one in terms of numbers but fortunately it is a problem that has a solution: omit the folic acid from multivitamin preparation.—(*Military Medicine*, April, 1960).

ARE MEN REALLY NECESSARY?

(The New Superwomen will only Need a Few Male Drones!)

A. J. BURTON, B.Sc.

ONE distinguished expert on genetics and a Nobel Prize winner, Dr. H. J. Muller, suggested recently that sperm should be taken from geniuses, frozen for twenty years, and then administered to carefully selected females to produce a race of supermen. Dr. Muller fears that the human race may be doomed if it continues to bring children into the world in a pleasant but haphazard way and without scientific planning.

Judging from the recent outcry about the application of artificial insemination to human beings, it is unlikely that scientifically planned reproduction will become popular overnight. Nevertheless, it is interesting to look at Dr. Muller's idea a little more closely.

From a purely biological point of view, the method whereby men and women produce children is grossly inefficient, at least in so far as numbers of offspring are concerned. The snag is that only one of the two sexes is capable of producing babies. The earthworms, and a number of other lowly animals, manage things differently.

When two earthworms meet and mate, there is a mutual exchange of sperm, for each worm is at the same time male

and female. After mating, the two go their separate ways, and, in the fullness of time, each produces a number of eggs. So, from the point of view of actually producing offspring, all earthworms are useful members of the earthworm community. Whereas, in this respect human males may be considered to be almost redundant.

It has to be admitted, of course, that at least for the present, the male *does play* an initially important part in human reproduction. But, again biologically speaking, there is no real need for such a large number of males in the population as we have today. In Western society, a man may be the father of twenty children, though this is an unusually high figure. Yet, a virile male is quite capable of fathering some three thousand children during his life-span.

The honey-bee colony does not suffer from this superfluity of males. In a hive containing many thousands of bees, only a few hundred male “drones” are suffered to exist, and even these are thrown out of the hive when winter comes. Their job of fertilizing the queen is then over, and she is left with a sufficient store of sperm to last for several years. It is biologically possible, then, for a society to exist with a drastically reduced male population.

The green-flies, or aphids, have taken things a step further by banishing males from the population for all but a short season of the year. All through the spring and summer, the entirely female population goes on increasing in numbers without benefit of males. The young

are brought forth alive and are always female. It is only when the chill of autumn comes that males reappear, and specially resistant fertilized eggs are laid to survive the winter.

Such a reduction in the numbers and importance of the male seems to be fore-shadowed by Dr. Muller's suggestion for scientifically planned reproduction. He talks of a race of supermen, but may it not more probably be a race of superwomen? All that would be required in such a scientifically planned society would be a few selected males to keep up the stocks of frozen sperm in the sperm banks. The world could be run by a race of Amazonian women, of whom only the fittest individuals would be allowed to reproduce.

Furthermore, matters could be so arranged that, with few exceptions, only female children would be conceived. It would only be necessary to improve upon the relatively recent technique of separating male-determining from female determining sperm by the passage of an electric current through the

fluid in which the sperms swim. The two types could then be sorted separately in the sperm bank, the male determining variety being kept on the debit side.

Our future civilization of superwomen need not stop at this stage of numerical inferiority of the male. There is a little crustacean called the brine shrimp, which has carried the feminist movement to its ultimate conclusion. There are no such animals as male brine shrimps.

No doubt in the course of the evolution of the new Amazon society, males would be finally dispensed with, the Amazons, like the aphids, bringing forth their young without benefit of fertilization. And all such children would be daughters.

All this may seem to be fantastic nonsense, yet nowhere in this story of the growth of an Amazon society has any fundamental biological concept been upset. It could happen. Remembering the brine shrimp, we men should be constantly on our guard.—(*Family Doctor*, December, 1960).

Stress and its Headstrong Offspring

It is so easy to bequeath an all-embracing word upon a wide variety of things and thus convince oneself that they all resemble each other closely. Are we not guilty of much the same thing if we use the word "stress" to embrace all the thousand natural shocks the flesh is heir to? The same word 'stress' is applied to the deliberate crushing or burning of a limb in experimental work on anesthetized animals, but is also used to cover the strain felt by a financier making money on the stock exchange. It seems likely that the reaction of most of us to having our legs crushed would be very different from our reaction to making money on the stock exchange. Not only has the word "stress" been allowed to run wild, but its headstrong offspring, the 'adaptation syndrome,' has been given equal freedom to roam anywhere and lay claim to any unexplained illness that comes its way.—(*The Lancet*, October, 1960).

THERAPEUTIC MISADVENTURE

It was William Cobbett who said of the medical treatment accorded George Washington that to bleed a man to death, trying to save his life, did not make sense to him. And for this outspoken criticism he was hounded out of the United States. But we must think a little along the same lines when we read of fatal reactions to powerful drugs. If these agents have the power to destroy life, how do we manage to equate their action with normal healing processes?

The *British Medical Journal*, November 5, 1960, reported that "deaths from therapeutic misadventure are the subject of some instructive statistics in the latest annual commentary to come from the Registrar-General for England and Wales. In the two years 1957-58 there were 265 deaths due to adverse reactions to drugs or therapy.....Prominent among the drugs causing death was chloramphenicol, which continued to show its lethal potentialities in causing 13 deaths; the causes were blood dyscrasias and in one case a hypersensitivity reaction. Chlorpromazine on its own caused 10 deaths, in conjunction with reserpine 1, and with pectazine 1. In addition, pectazine by itself caused 3 deaths. Anticoagulants caused death in 9 cases, plus another 2 when administered with other drugs; as would be

expected, most of these were due to hæmorrhage."

It may, of course, be argued that desperate cases need desperate remedies, meaning powerful drugs, but the rheumatic forms of disease hardly come into that category. Yet the report continues: "The anti-rheumatic drug phenylbutazone was responsible for 5 deaths when given on its own, for 1 in conjunction with meproamate, 1 with gold, and 1 with gold and salicylates. Gold itself caused 4 deaths."

The antibiotic drugs, among others, came in for their share of the toll, and aspirin, too, of course. "The 8 deaths caused by penicillin were all due to hypersensitive reactions. Among the many other types of drugs causing fatal reactions were steroid hormones, anti-thyroid drugs, iron preparations, aspirin, mersalyl, and cytotoxic drugs. The Commonest fatal response to a drug was blood dyscrasia (a morbid, toxic condition) and after that a hypersensitivity reaction."

Amazing as these revelations may be, however, the concluding sentence of the annotation is perhaps even more astonishing: "It is interesting to note that the Food and Drug Administration of the U.S.A. has recently proposed regulations which would, among other things, draw the hazardous properties of a drug to the physician's attention by means of suitable wording on the label of its container."—(*Health For All*, January, 1961).

SNORES

A JAPANESE doctor claims that snores vary little the world over.

Everyone's snores are similar, he says, though men and women do differ. Male snores are low in tone, while the female snore is high pitched and divided into two types: the "Beast," and "Niagara Falls," which sounds like a waterfall.

These theories of Dr. Takesuke Ikematsu of Noda City Chiba prefecture, central Japan, were published in the magazine "Koron."

Dr. Ikematsu claims that he has spent most of his life studying why and how people snore. He began his study when a tearful mother and her daughter asked him for help. The newlywed daughter had been deserted

by her husband because she snored too much. Dr. Ikematsu said that he cured the girl by operating on her abnormal pharynx.

He continued his study of snoring, which has taken him around the world, and discovered that 41 per cent of all women snore, more or less, though most deny it. Many of his patients, he told the magazine, have been young women about to be married who wanted to stop their snoring habit.

Dr. Ikematsu's suggestions for curing slight snoring are:

1. Cover your face with a handkerchief or cloth.
2. Keep yourself alert by stimulating your sleeping body. He suggests, for example, sewing a toothbrush into your pyjamas.

He advises serious snores to consult their doctor for advice and possibly an operation.

Goethe's Nine Keys to Happiness

What makes life worth while? Some say health. Others believe it is wealth. Nearly everyone will mention love, hope and faith, every one of which is a requisite to happy, successful living.

The great German philosopher and poet of the nineteenth century, Johann Wolfgang Goethe, gave us a clear and inspiring summary of all nine requisites. Goethe's "Faust", known to all lovers of literature and opera, was completed at the age of 80.

On the principle of first thing first, Goethe places *health* as the first requisite on his list. Ralph Waldo Emerson, the American philosopher, said "the first wealth is health," thus showing that great minds think alike in proclaiming that health comes first.

Here are Goethe's nine requisites for a happy, contented life:

1. Health enough to make work a pleasure.
2. Wealth enough to support your needs.
3. Strength to battle with difficulties and overcome them.
4. Grace enough to confess your mistakes and forsake them.
5. Patience enough to toil until some good is accomplished.
6. Charity enough to see some good in your neighbour.
7. Love enough to move you to be useful and helpful to others.
8. Faith enough to make real the things of God.
9. Hope enough to remove all anxious fears concerning the future.

—(Health For All, January, 1961).

THE WHY AND HOW OF ACCIDENTS

Big risks and little risks.—An accident can be considered in several ways. There are material circumstances that make it possible as well as human actions that bring it about. Then again, there are factors that influence our decision either to accept or to avoid the known risks which surround us in our daily lives.

Let us look at four typical risk situations:

1. A man who lights a cigarette runs a minute risk of burning himself and the possible consequences are of trifling importance—the risk is therefore, easily accepted.

2. If the same man kisses his wife and she has a heavy cold, the risk of catching the cold is considerable, but the possible consequences are not very serious.

3. When he travels by air the risk is extremely small but the potential accident involved is of the utmost gravity.

4. Finally, if this man were to handle high explosives in circumstances where the usual precautions could not be taken, the risk would be enormous with correspondingly severe consequences.

Of all the ills that continually beset us, the accident is the most common, one of the deadliest and perhaps the one about which we know least. In countries where communicable diseases have been brought under

control, accidents take third place, after cancer and the cardiovascular diseases, among the principal causes of death. They take first place at the time of man's youth and maturity—from 1 to 45 years of age.

Yet this "plague" of the present age was not regarded as a public health matter until a few years ago.

Accidents are predictable.—The first epidemiological studies showed the advantages of dealing with accidents in the same way as with illness. Like diseases, they affect different age-groups differently, and detailed studies have shown that they have an aetiological history, just as do influenza or boils.

Accidents are never the result of pure chance. They generally occur in certain environments and in well-defined circumstances with a more or less predictable frequency.

If accidents have causes, and they are not simply unpredictable pieces of bad luck, can they be systemically prevented?

Modern medicine regards disease as an interaction between the host—the patient—the *environment*, physical as well as social, favouring the disease and the *agent* which brings it to man. These factors are taken into account in disease prevention programmes. Modern methods of accident prevention are based on the assumption that this approach can be applied to accidents also.

The Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death prepared by the

U.S. Peace Corps to Aid Developing Nations

At this weekly News Conference on March 1, 1961, President Kennedy announced the creation of a temporary Peace Corps of 500 to 1,000 American men and women to serve *without salary* in developing countries which request their educational and technological skills. He added that he was asking Congress to pass legislation establishing the Peace Corps on a permanent basis.

He hoped to have 500 or more people in the field by the end of the year.

Through the world the people of the newly developing nations are struggling for economic and social progress which reflects their deepest desires. Our own freedom, and the future of freedom around the world, depend, in a very real sense, on ability to build growing and independent nations where men can live in dignity, liberated from the bonds of hunger, ignorance and poverty.

One of the greatest obstacles to the achievement of this goal is the lack of trained men and women with the skill to teach the young and assist in the operation of development projects—men and women with the capacity to cope with the demands of swiftly evolving economies, and with the dedication to put that capacity to work in the villages, mountains, the towns and the factories of dozens of struggling nations.

The vast task of economic development urgently requires skilled people...to help teach in the schools, construct development projects, demonstrate modern methods of sanitation in the villages, and perform a hundred other tasks calling for training and advanced knowledge.

The Peace Corps, which will recruit and train American volunteers, *sending them abroad to work with the people of other nations*, would meet this urgent need for skilled manpower.

In establishing our Peace Corps, we intend to make full use of the resources and talents of private institutions and groups. Universities, voluntary agencies, labour unions and industry will be asked to share in this effort—contributing diverse sources of energy and imagination—making it clear that the responsibility for peace is the responsibility of our entire society.

We will only send abroad Americans who are wanted by the host country—who have a real job to do—and who are qualified to do that job. Programmes will be developed with care, and after full negotiations, in order to make sure that the Peace Corps is wanted and will contribute to the welfare of other people.

Our Peace Corps is *not* designed as an instrument of diplomacy or propaganda or ideological conflict. It is designed to permit our people to exercise more fully their responsibilities in the great common cause of world development.

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CAUSES OF CATARRH

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Life in the Peace Corps will not be easy, there will be no salary; allowances will be at a level sufficient only to maintain health and meet basic needs. *Men and women will be expected to do work and live alongside the nationals of the country in which they are stationed—doing the same work, eating the same food, talking the same language.*

Among the specific programmes to which Peace Corps members can contribute are:

1. Teaching in primary and secondary schools, especially as part of national English language teaching programmes;

2. Participation in the world-wide programme of malaria eradication;

3. Instruction and operation of public health and sanitation projects;

4. Aiding in village develop-

ment through school construction and other programmes;

5. Increasing rural agricultural productivity by assisting local farmers to use modern implements and techniques.

The initial emphasis of these programmes will be on *teaching*. Thus the Peace Corps members will be an effective means of implementing the development programme of the host countries—programmes which United States technical assistance operations have helped to formulate.

President Kennedy hopes that other nations will mobilize the spirit and energies and skill of their people in some form of peace corps, making their efforts only one step in a major international effort, to increase the welfare of all men and improve understanding among nations.—(U.S.I.S.)

CAUSES OF CATARRH

CATARRH is not of itself a disease, says Dr. R. Scott Stevenson. In most cases it is harmless, though for certain people it is a considerable annoyance.

Catarrh is usually an increase of the normal nasal secretion whose job is to moisten, warm, and filter the air. It can be caused by either irritation or infection (such as the common cold).

The irritation may be due to a sudden change of the atmosphere, from dust, fumes or pollen, or in some cases emotional upsets. Frustration, guilt, or anxiety lead to swelling of the lining tissues and increased secretion of mucus.

The treatment of catarrh, like the treatment of any other ailment depends on the causes, which in many cases point to their own cure.

But hard nose-blowing only adds to congestion. When the nose is blown it should be done gently and there should be no compression of the nostrils.

And for the common cold, the best treatment, despite modern drugs, is still a hot bath at night and a couple of aspirins. Friar's balsam is more soothing than curative. Remember that bedrooms should be kept warm with the windows closed at night. Catarrhal patients should never sit in cold draughts.

World Health Organization lists more than 135 types of accidents* which more or less fit one or the other of these two definitions.

In statistical practice, however, physicians and prevention specialists have grouped accidents into half a dozen major categories, which vary only slightly from one country to another. For example, the classification of the American National Safety Council has six main headings: work, motor vehicles, public, farm, home and school accidents.

In certain countries, "commuting" accidents are included in

* Not including complications due to non-therapeutic medical or surgical procedures, therapeutic misadventure and late complications of therapeutic procedures, or late effects of injury and poisoning.

work accidents; in others, "road" or "transport" accidents cover all types of vehicles, whether motorized or not and whether public or private. In the National Safety Council classification, drowning is considered a "public" accident; elsewhere it may be grouped, along with accidents caused by firearms, in the domestic accident category.

Accidents in the air or on railways, which are statistically insignificant, may be classed either as public or as transport accidents.

Poisoning is characteristically a "home" accident, while "school" accidents are very similar to home accidents except that they occur outside the home.—(Courtesy: WHO Series).

Education

"I grow more intolerant of fools as the years roll on. If I had a son, I was saying, I would take him from school at the age of fourteen, not a moment later, and put him for two years in a commercial house. Wake him up; make an English citizen of him. Teach him how to deal with men as men, to write a straightforward business letter, manage his own money and gain some respect for those industrial movements which control the world. Next, two years in some wilder part of the world, where his own countrymen and equals by birth are settled under primitive conditions, and have formed their rough codes of society. The intercourse with such people would be a capital invested for life. The next two years should be spent in the great towns of Europe, in order to remove awkwardness of manner, prejudices of race and feeling, and to get the outward forms of a European citizen. All this would sharpen his wits, give him more interests in life, more keys to knowledge. It would widen his horizon. Then, and not a minute sooner, to the University, where he would go not as a child, but a man capable of enjoying its real advantages, attend lectures with profit, acquire manners instead of mannerisms and a university tone instead of a university taint.—(Norman Douglas in "South Wind.")

Faster Growth

Plump children generally grow faster and mature earlier than slender ones reports Stanley M. Garn, Ph. D., and Joan A. Haskell of Fels Research Institute, Yellow Springs, Ohio. Their findings are based on a study of 259 boys and girls. On the average, chubby children reach puberty earlier, and also stop growing in height earlier. Between ages one and a half and 12½, children above average in fat were advanced in height by about half a year's growth.—(Today's Health, September, 1960).

Coronary Heart Disease

"We are men not mice" says

SIR HENEAGE OGILVIE,
K.B.E., M.A., M.D., F.R.C.S., London

I WAS with the Editor of *'Family Doctor'* in the Middle East during the war, and I have followed his journal ever since it began. Each issue as it arrives is pounced on by Nannie, passed on through three generations of the family, finally arrives in the waiting room, and then it suffers slow disintegration at the hands of patients.

John Bradshaw's article "Out of the frying pan," in the May number caught my eye because of the illustration that heads it. I am not enough of a scientist to disagree with it, but I am sorry to see that he disagrees with views that I have always held, and disapproves of the way of life that I follow.

I am seventy-three, a working surgeon still in practice. Apart from joints that are less supple than I should like, my health is excellent. I suffer from no identifiable diseases. Without being a health faddist, I am as fit as any man of my age. I sleep well, and I never have a headache or indigestion. My weight is steady, and will pass for insurance purposes. My blood pressure is reasonable, I have excellent pulses in all four limbs, and I do not intend to have a coronary thrombosis at any time.

I have avoided the effeminate sports, but while I enjoy a spice of danger and the sense of physi-

cal tiredness, I have never tried to be a "tough guy." I smoked cigarettes to my detriment from the first war of 1914—18 till I was forty, when I stopped. I still enjoy a good cigar and, being a Scotsman, I smoke "any given quantity." My consumption of alcohol has always been variable, always social, never excessive. I take no drugs of any kind at all.

Secret of health.—I differ fundamentally from John Bradshaw and indeed from many of the health experts of the newspapers and the B.B.C. I have long believed that the secret of health is the consumption of animal fats limited only by a feeling of repletion.

As an undergraduate I took Honours in the School of Natural Science in Physiology. Of great interest at that time, this was from 1906 to 1910, were the studies of J.B. Leathes on fats and their metabolism. An American physiologist, called in by a railway construction company to investigate the poor output of their labour, found that the many Italians among them were buying the cheapest food they could find in order to save as much as possible. He advised that part of their wages should be in the form of milk and butter, because fats supply a greater amount of energy in proportion to bulk than any other food, and they are digested and absorbed over a longer period. His advice was followed, and led to a notable increase in efficiency all round.

During my studies I encountered at every turn the important part that animal fats play in the

structure and maintenance of the body. Every cell and every tissue contains fats. Fats are an essential part of the brain and of all nervous tissues. The sterols, which are fats, are the basis of the hormones and the defence mechanisms of the body.

Animal fats are the fats that animals make for themselves for the purpose of their own metabolism. If we give them vegetable fats they do not complain, but they turn them as quickly as possible into saturated fats, the kind their body uses. If they get no fat at all in their diet, they make it for themselves out of carbohydrates, and the fats they make are animal fats.

As an undergraduate I was lucky to be able to afford animal fats whenever I wanted them. Eggs and bacon and buttered-toast for breakfast. Beef with plenty of fat for lunch, buttered toast and tea-cakes in the afternoon, and cream with whatever food was available. I found, as the American physiologist had taught me, that after a good meal containing plenty of animal fats, I could go on working and playing hard, if necessary for twenty-four hours without another meal.

Both wars rubbed in the same lessons. Though my job in the Army was a purely surgical one, I was aware of the extent to which the success of our forces could depend on exceptional men who were able to perform strenuous feats separated by long distances from any source of supply or help.

The matter was discussed in two good articles by the explorer Stefanson. In the first Stefanson relates how he and Anderson lived for a year in perfect health on a diet of meat and fats with no addition except water, under the observation of the Professor of Physiology at Cornell University. When their choice was unrestricted it was found that they derived 80% of their calories from fat and 20% from meat. In the second article Stefanson described "pemmican," a mixture of dried and pounded buffalo meat with melted buffalo lard, on which fur trappers used to live for months at a time in the Arctic circle, and on which Perry reached the North Pole.

Finally, I have learned that the only sure method of slimming without limitation and without hunger, is a diet of meat and fat *ad lib*, but a diet from which all carbohydrates, and particularly sweets, are rigidly excluded.

Whence did the racket linking coronary disease with animal fats come? History does not support it. The men who won the battle of Agincourt, the men who drove off the Spanish Armada, the men who fought with Nelson and Wellington, fed on butter, on fat beef and fat bacon. They did not suffer from coronary disease. If they had done so, careful observers like Bright, Addison, and Wilks would certainly have described it.

Armchair theorist.—Coronary disease was first common enough to attract attention about 1930. The racket, for racket it is in my

view, started when some armchair medical theorist told us that the Scandinavians did not suffer from coronary disease during the Second War of 1939-45, but that as soon as the war was over it started to appear again. In the war they were short of food. After the war they could afford butter and bacon. Therefore animal fats are the cause of coronary disease! *Q.E.D.*

It is just as simple as that. But round the brain-wave of this unsung scientist, and the biggest outcrop of laboratory publications, one of the biggest commercial rackets of the pharmaceutical industry has grown. The trouble about the literature is that it is all theoretical. It is all or nearly all based on experiments on animals whose metabolic processes differ greatly from those of man, and it makes constant use of what A.P. Herbert calls "witch words," terms that themselves suggest a particular response.

The temperance reformer who talks about "intoxicating liquors," suggesting a picture of gin palaces and ruined homes, is regarded as a public benefactor. Any man who described milk as a "bacilliferous beverage," which is equally true, would raise a howl of infuriated protest.

Dr. John Bradshaw, who would never slander a fellow practitioner, has no reticence in using the veiled innuendoes about fats. He talks about "helpful fats and harmful fats." Why? He says "the helpful type of fat actually lowers the amount of

fat in the blood, the harmful fat raises it." What has that to do with coronary thrombosis? The trouble is that all or nearly all those statements are attributable directly or indirectly to one or two men, scientists of great distinction and constant writers, but not doctors in the practical sense.

The men I have in mind have medical qualifications, but they have never held a post as house-surgeon or house-physician, they have no hospital appointments, and they would probably be unable to distinguish a coronary thrombosis from a perforated duodenal ulcer. Hard on the heels of these laboratory scientists come the pharmaceutical or food products "guaranteed to be free from any substance contributing to heart ailments" or else they "reduce the danger of coronary disease."

What is the truth? In marked contrast to the talk about "helpful fats and harmful fats," and the "may be's" and "it is thought by some that," is a recent simple statement from the United States Department of Health, Education, and Welfare that has just come to hand. I quote from it.

"It is the opinion of the Food and Drug Administration that any claim, direct or implied, in the labelling of fats or oils or other fatty substances offered to the general public that they will prevent, mitigate or cure diseases of the heart or arteries is false and misleading, and constitutes misbranding within the meaning of the Federal Food, Drug and Cosmetic Act."

Lack of exercise.—What then is the cause of coronary disease? In my opinion, for what it is worth, it is simple lack of exercise. If you feed a hamster on cream you will send up his blood cholesterol, but you will not give him coronary thrombosis because the little chap is always running about, and flushing his little hamster arteries.

The Swedes bought more butter when the war was finished, but they also bought more motor cars and used more lifts and allowed their coronaries to clog up. The Eskimo eats more fats than anybody, and it is by no means all "helpful" fat, but he has to work hard to get rid of it. Bus drivers die of coronaries while conductors do not. Not because the drivers eat more butter, but because the conductors run up and down stairs. The Americans get more coronaries than any race in the world. They also eat far less butter than any other, and never use their muscles if they can help it, once they can afford an automobile or an apartment with an elevator.

For myself I get through a quarter of a pound of butter a week. I have two rashers of bacon every morning. I dine at Simpson's when I can afford it because I know I can get a slice of fat sirloin if I ask for it, but I avoid the "fake" fats of ice-creams and cream buns. Above all I always use my legs for a journey of under two miles, and for a climb of less than three storeys.

When I am lecturing to students on gastric surgery, much of which is based on unsound experimental work, I show them a slide taken from the strip cartoon of Blondie and Dagwood Bum-stead which is published in the *Daily Sketch*.

Blondie is calling Dagwood in the morning. He objects "I can't open my eyes. I didn't have enough sleep."

Blondie replies "You slept eight hours, and science has proved that's plenty of sleep for the normal human being."

"How did they prove it?"

"They proved it with white mice!"—(*The Daily Sketch*, via *F.D.*, London).

The Preservation of Humanitarianism

Society has given the medical profession the highest score in humanitarianism and the lowest in cynicism as compared to any other calling. In the minds of the laity the image of the physician remains that of a benefactor of humanity. He is still heir to priestly tradition and continues to be accorded a respect and awe which is unique in our culture. How long this condition will prevail will depend upon many factors but also upon ourselves. Our profession must remain alert and expose the selfish interests that promote troubles. Selfish interests are cynical, always in conflict with humanitarianism.—(*Connecticut Medicine*).

Virtue

There can be no greater source of good than the practice of virtue; and no greater source of evil than the forgetfulness of it.—(*Tirukkural*).

Appetizers and Sedatives

As the professor arrived home his wife asked: "Where's your car?"

"Dear me," he said, "did I take it to town with me?"

"Yes," she replied.

"That's queer. I remember now that after getting out I turned round to thank the chap who had given me a lift, but he had gone."—(*Tit Bits*, London).

Dog-Gone

The most galling problem harassing a suburbanite was to keep dogs from tearing up his patiently-cultivated lawn. His prominent "Keep off the Grass" sign wasn't taken seriously by any of the dog owners. Seeking a fresh approach, he erected a small sign on a newly-seeded area. It read: "Protect your dog! Lawn specially treated with poison." Not a dog touched a blade.—(*Tit Bits*, 28-1-1961).

"What happened to that girl you used to saw in half in your magic act?"

"She's living in Glasgow and Edinburgh."—(*Tit Bits*, 28-1-1961).

Two men were discussing the rate of taxes and government waste of money. Just then a school bus passed them.

"See what I mean?" exclaimed one. "When I was a boy we walked three miles to school and three miles back home each day. Now we spend \$5000 for a bus to pick up the children so that they don't have to walk. Then we spend \$50,000 for gymnasium so they can get exercise."—(*Wallstreet Journal*, New York).

An Englishman found himself at an embassy reception in London recently, terrified at being left alone for a moment with a suave Arabian diplomat. The squire hazarded. "They tell me that in your country you worship the sun."

The Arab answered, "So would you if you ever saw it."—(*Newark Star-Ledger*, U.S.A.).

"It is possible that the attacking missile might carry a small missile to shoot down the anti-missile missile. This, then, would be the anti-anti-missile missile missile."—(*Boeing Magazine*).

Yes, but surely it would be possible for the anti-missile missile to carry another—oh, well, you know.—(*World Digest*).

A patient is not merely a piece of furniture, to be kept clean and ranged against the wall. The nurse who never observes her patient's countenance at all, and never expects to see any variation, any more than if she had charge of delicate china, is on the way to nothing at all. A nurse ought to know

what a sick human being is: how to behave to a sick human being; that her patient is a sick human being and not an animal."

All as true today as when it was first written by Florence Nightingale a hundred years ago; and now re-printed in.—(*Nursing Mirror*).

"Only one supermarket was ever opened in Paris, and it lasted 99 days," says Gordon Sinclair in "Liberty." Why? The French housewives hated clicking through the turnstiles and having no one to argue prices with. What is more, those same housewives showed that they also hated having goods delivered at the door.

Shopping, to them, is an occasion, not an unwelcome chore.—(*F.P.*, 1960).

A Little is Plenty

Three things are good in little measure and evil in large: yeast, salt, and hesitation.—(*Talmud*).

Hate the Actions Not the Man

I remember that when Christian teachers told me long ago that I must hate a bad man's actions but not the man, I used to think this a silly, straw-splitting distinction: how could you hate what a man did and not hate the man? But years later it occurred to me that there was one man for whom I had been doing this all my life—myself.—(*C. S. Lewis*).

They used to say that aeroplanes for the individual would eventually be as cheap as cars, but now they're working to make cars as expensive as aeroplanes.—(*H. B. Fox*).

Cæsareans Help

The final date for enrolling five-year-olds in the local kindergarten was September 30. Tommy would be five, but not until two days later, on October 2.

At the school office Tommy's mother protested and pleaded in vain. Then she exploded: "It isn't as though I was trying to get away with something. He was due in September."

As she flounced out, she was heard to mutter, "Now I know I should have had that Cæsarean."—(Contributed by A.P.H.).

Woes Galore

"Life's been hard for me this year," the garageman told us as we waited for our car to be repaired. "My wife's been in hospital for two months, my boy fell out of a tree and broke his elbow, my girl has had to have eye treatments every week, and I'm aching all over with arthritis. I said to the Lord just this morning, 'Lord, if there's any more trouble comin', send it now while I'm used to it.'"

Hand-Book on FIRST AID IN ACCIDENTS

By Dr. U. RAMA RAU

Revised by : Dr. U. KRISHNA RAU, M.B., B.S., M.L.A.

Published in : English, Tamil, Telugu, Canarese, Malayalam & Hindi

Explains how First Aid should be rendered
in Accidents such as :—

FRACTURES, CONCUSSION, FAINTING, CONVULSION, SHOCK, COLLAPSE, SUN-STROKE, HEAT-STROKE, ASPHYXIA, SHOCK from ELEC- TRICITY & LIGHT- NING,	BURNS, WOUNDS, BITES, SNAKE BITE, BRUISES, STRAINS & RUPTURE of MUSCLES, POISONING, INSENSIBILITY, ETC., ETC.
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One of the illustrations

The book written in popular language with many illustrations, and running to 240 pages (Demy 16mo) has been found very useful by the lay public in rendering First Aid scientifically in cases of accidents till the arrival of the doctor. Members of the medical profession have found it useful to deliver lectures on First Aid to laymen.

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1923



FOUNDED BY THE LATE Dr. U. RAMA RAU

A JOURNAL DEVOTED TO HEALTHFUL LIVING

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Editorial & Publishing Office : 323-24, Thambu Chetty St., Madras-1

What's New in the News?

Food Tastes and Personality

According to Mr. Kiichi Kuriyama Director of a Food Research Institute, a person's personality can be analysed through his taste in foods.

People who like teas are refined, live long and make a comfortable living. Those who like coffee or cocoa are short-tempered self-conceited and rather short lived.

Mr. Kuriyama's theories, formed after 50 years of research, were published in a Japanese magazine, *Ikiru Josei*.

Some of his other theories on some of the foods were that:

Sweet potatoes were "lucky"; men lived a long time, were pleasantly sociable and affectionate and tactful in handling their wives. Women were optimistic, amiable and energetic.

Male apple eaters were refined, cautious and enjoyed a certain amount of luck. Women were composed, became good wives and led a happy life.

Men who ate bananas were tolerant, sensitive, energetic and successful if they made an effort. Women were energetic and sensitive and lucky as wives.

For spinach fans, the man lived until 60 or 70 and was energetic in the prime of life. The woman was amiable, energetic and obedient to her husband.

Men liking carrots were affectionate and sociable but not too well-liked by people. They were so good-natured they could be cheated by others. Women were energetic, good-natured but noseey.—(*Tokyo Sc. News*).

Semi-Conductor Thermometer

You merely have to touch the body with one end of this thermometer, and the needle on its dial will immediately show the right temperature. Its pinpoint end is so small that, if need be, one can measure the temperature of a fly's eye. These properties make it possible to use the semi-conductor thermometer for biological research. The new

thermometer has also been approved by medical workers, and with slight modifications the new instrument will be used for the investigations of the internal organs of the human body.

The new semi-conductor thermometer was designed by Leonid Sterin, research worker of the Laboratory of Automation and Remote Control, Mining Institute, Siberian Branch, USSR Academy of Sciences.

Hernia Problem

Hernias are not uncommon. At least 2.5 million American (15 of every 1000 persons) have them. Some 75% of all medically-reported hernias or ruptures, occur among men, and hernia operations account for 12% of all surgical operations among males.

Age and Pregnancy

Pregnancy is exceedingly rare in women over 50, and women past this age almost never give birth to a child who will live, says Dr. J. P. Greenhill. He tells of one of his own patients who was 49 when she had her first child; another woman who had several children gave birth to the last at age 52.

Strawberry Birthmarks

A common type of birthmark, the strawberry naevus will usually disappear completely or greatly improve even without treatment. British skin specialists report after studying 140 children with 169 marks. Only 21 marks remained when the youngsters were eight years old.

Ulcers in Children

If a child develops an ulcer of the duodenum, the first part of the small intestine, the chances are about 50-50 he will suffer additional symptoms later in life, a Mayo Clinic study finds.

Ashtangasareeram

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P. S. VARIER.

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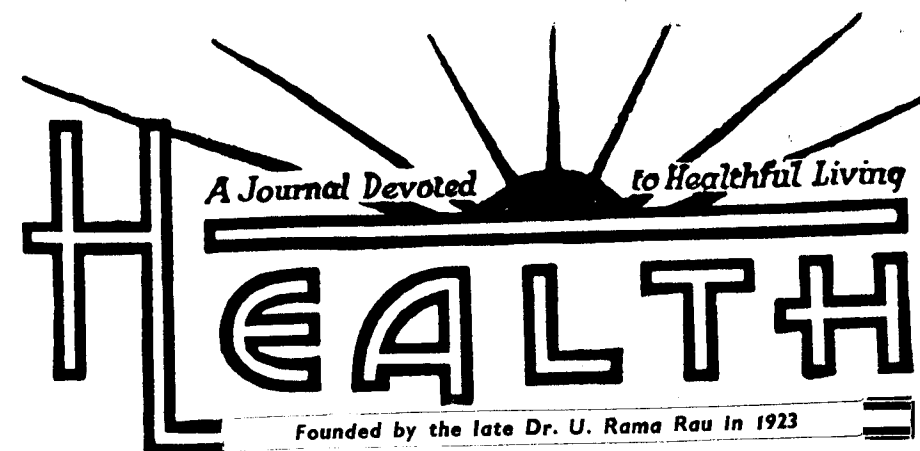
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HEALTH AND SOCIAL PROBLEMS

(The Drive Against Leprosy)

RASHTRAPATHI RAJENDRA PRASAD who was addressing the annual general meeting on the 25th April 1961 at Delhi, of the Hind Kusht Nivaran Sangh said the number and size of India's health and social problems were such that private philanthropy alone could no longer cope with them, though the need for voluntary effort would always be there.

Today the people were presented with unparalleled opportunities to rid mankind of an ancient scourge, and hoped the people would take full advantage of these opportunities. He, therefore, appealed to philanthropists and citizens in general to come forward to help overcome the health and social problems of the country.

RAJKUMARI AMRIT KAUR, Chairwoman of the Sangh, in her annual

report, said, there were 118 leprosy control centres in the various States of India. These centres registered for treatment about 1,59,000 leprosy patients. It will be remembered that Sri Dr. A. LAKSHMANASWAMI MUDALIAR, stated in his Presidential address to the 14th W. H. Assembly held at Delhi in February last, that the W.H.O. had to play a great part to control some of the old diseases, as well as new ones. Among the old ones were tuberculosis and leprosy. The experiments carried on in South India tended to give a ray of hope that by domiciliary treatment it might be possible to control tuberculosis and prevent its spread.

Leprosy had caused a great deal of concern in S. E. Asia and it would be worthwhile for the W.H.O. to concentrate on

the eradication of this disease. Although ~~transmittable~~ infectious disease, thanks to modern researches, it is now definitely curable by modern therapy. Social prejudices have long been a great impediment in our fight against leprosy. Due to ignorance and a fear of ostracism, people hide the early symptoms of the disease. Later on when deformities develop, the sufferers thrown out of society migrate to the far corners of the country, away from their home and friends. In this way, it became an All-India problem. Mr. T. N. Jagadisan, the enthusiastic and indefatigable worker in this field stated in a recent article:—

“Happily, there is a world-wide effort for leprosy control in the context of a new hope and a new outlook. Valiant attempts are afoot to kill the old legend of leprosy based on three false assumptions, (1) that it is very contagious, (2) that it is incurable and (3) that its victims are a people apart, accursed and possessed of a special psychology. Leprosy is coming into its own as just another disease, preventable and curable, and one which can be eradicated with persistent efforts. The leprosy patient is also coming into his own as a man like any other. His sickness is curable, and as knowledge of it is spreading, fear, hopelessness and degradation which were his lot in the past are no longer his. He may be able to lead a normal life while taking treatment and even continue in employment. If stay in a hospital is called for, it is only for a short time. The recent advances of medicine and surgery can bring relief in reactional phases of the disease and also abolish established deformity. Physiotherapy has proved useful both in the prevention and correction of deformities. Mass treatment campaigns are striking a powerful blow at the leprosy bacillus by reducing the reservoirs of infection in patients. The

devoted work of the Mission to Lepers in many different countries, the services of the Catholic Missions in several parts of the world, and the inspiration of lives of outstanding heroism—most notably that of Father Damien—deepened compassion for the leprosy sufferer. Compassion also stimulated scientific adventure. Among the secular organizations, the British Leprosy Relief Association and the Leonard Wood Memorial have done much to promote leprosy research. The brightest feature of present-day leprosy work is that Governments recognize their “inescapable responsibility” in the matter. It is fortunate that they have the financial assistance and expert guidance of WHO and UNICEF. So far 20 countries where leprosy is a serious problem have received the active assistance of WHO and UNICEF. The WHO holds periodical conferences and seminars and appoints expert committees and study groups.”

The problems of world health are becoming increasingly complex. The stress and strain of modern civilization, the constant dread which society has to bear from the action and reaction of world politics, and the conditions prevalent in highly industrialized society have unfortunately increased the cases of mental illness, fatigue and irritability; and what is more disquieting is that this factor is as important in the young as in the old in the matter of predisposing them to various diseases.

As new discoveries are made and new remedies placed in the hands of the medical profession, one has to realize that the goal of public health work in respect of most diseases, which affect the masses, will be more of prevention than cure in the Third Five Year Plan.

DIABETES MELLITUS

JOHN J. A. REID,

T.D., B.Sc., M.B., Ch.B., D.P.H.

[For every known diabetic, there is one with diabetes who does not know it. But nowadays diabetes can easily be treated and brought under control, especially if it is discovered at an early stage].

FOR every person who knows something about it there are many who do not know just what it is and how common it is. In *diabetes mellitus*, to use the proper medical name, the body's ability to use food, and especially sugary and starchy foods, is upset. Normally such food provides energy and heat, any surplus sugar being stored or turned into fat. Something goes wrong with these processes in diabetics and, as more food is eaten, increasingly large quantities of sugar accumulate in the blood. The kidneys try to get rid of this by making a large volume of urine and loading it with sugar.

The passing of large quantities of urine is one of the main symptoms of diabetes, and so is the intense thirst that results. The inability of the diabetic's body to make proper use of the food which is eaten soon leads to the other typical symptoms of tiredness and loss of weight. The sugar in the urine sometimes sets up an itching, especially in women, and this is again a common symptom of diabetes. Other features, although less frequently present, may occur. These include disturbances of

vision, recurring boils, excessive hunger and cramps or pains in the legs. These are the chief symptoms.

Nowadays, diabetes can be brought rapidly under control by means of a diet, sometimes assisted by the taking of insulin or of special tablets. Insulin is not a drug but a glandular secretion obtained from the pancreas, that is the sweet-bread, of a cow or pig. It is used in the case of a diabetic whose own pancreas does not produce enough insulin to regulate the use of sugar in his body. It is given by injection, and even children as young as seven can soon learn to inject their own insulin. There is no reason to be scared of insulin and, in any case, many diabetics do not need it.

In mild, early cases of diabetes the symptoms may be very slight. They may be present only occasionally or not at all. Sometimes a man is surprised on undergoing a routine urine test in the course of a superannuation, life insurance, or Army medical examination, to be told that he has sugar in his urine. If this is found, a blood test is necessary to decide whether the sugar is due to diabetes, because some people have sugar in the urine although they do not have diabetes. As the result of such purely routine urine tests, hundreds of people each year are found to have diabetes.

They should count themselves lucky, for their diabetes has been detected early, before unpleasant symptoms appeared. Even mild diabetes, if it is not treated, can eventually lead to complications that may

permanently damage the eyes or the heart and blood vessels. If diabetes is found early it can be treated successfully, and the danger of such complications can be enormously reduced. Numerous surveys made by special teams carried out in several States of America, revealed the presence in every city of a substantial number of undiagnosed diabetics, even more in some instances than the known diabetics in those areas.

Recognizing the importance of detecting diabetes as early as possible, the American Diabetes Association tries to keep the subject constantly before the eyes of the public. Every year a special *Diabetes Week* is held throughout the United States. During this week special efforts are made to find undiagnosed diabetics in all parts of the country. All modern methods of publicity are used. Business, industry, social and professional bodies, and indeed representatives of every interest in the community, all co-operate in publicizing and organizing what they call *Diabetes Week*.

By these methods, millions of Americans have urine tests, and thousands are found to be diabetic every year. These newly discovered diabetics can then be given the opportunity of prompt treatment for their diabetes and their health can be safeguarded.

In Britain [and in our own Bharath], very little has so far been done about finding undiagnosed diabetics, although representatives of the hospital, general practitioner, and public

health services have in recent years carried out limited investigations. The results of these point to the conclusion that, as in America, for every known diabetic there is an undiagnosed one.

Large-scale detection drives to discover early cases of tuberculosis by means of mass radiography, have become an accepted feature of life in Britain [and is fast becoming so in India too]. They have been most successful in combating that disease. Diabetes is, of course, a very different condition and, unlike tuberculosis, is not infectious. It is, however, just as important to discover it as early in its progress as possible. For that reason, large-scale detection drives to discover undiagnosed diabetics may well become one of the next big jobs for preventive medicine in Great Britain (also in India).

Certain groups are more likely to develop diabetes than others. It is commoner in those over the age of forty, although it may occur at any age. It is rather more likely to affect women than men. It is more frequently found in those who are overweight, and is but one of many medical reasons for trying to prevent the waistline from expanding. Finally, it is commoner among those who have a diabetic in the family than among those who do not.

This last fact must be kept in perspective. It does not mean that because a Great-aunt, or grand-mother had diabetes you are bound to develop it. What it means is simply that the

chances are increased, the precise chance varying with each family. It also means that those who have diabetic blood-relatives should make particular efforts to avoid becoming overweight.

Finally, should you suspect that you are suffering from diabetes, don't delay. See your own doctor. A urine test, and probably a simple blood test, will decide the matter. If you are found to be diabetic you will be in good company. There are at least half a million, and probably more, diabetics in Britain (and perhaps a much larger number in India) to be found in every walk of life, and taking

part in every sport.

It's no use burying your head in the sand and hoping that it isn't diabetes. If it is, the sooner it is diagnosed and brought under control the better it is for your present and future health. Don't listen to old wives' tales about diabetes. They usually come from diabetics whose condition was detected too late or who have not followed their doctors' advice about treatment. Some developed diabetes many years ago, before it could be effectively treated.

The promptly diagnosed diabetic can look forward to both a happy and active life.—(*Family Doctor*, December, 1960).

What Do You Know About the Sexes?

HERE'S A CHANCE to see how much you really know about the sexes. How do your *true-or-false* answers to these eight questions compare with recent research findings? For the answers, turn to page 111.

1. Women make more fuss about minor and imaginary ailments. T—F—
2. Men are more truthful than women. T—F—
3. Most husbands are more intelligent than their wives. T—F—
4. Divorced men are better second marriage risks than divorced women. T—F—
5. The widespread masculine belief that women are the more talkative sex has no basis in fact. T—F—
6. Women are more easily bored than men. T—F—
7. Men have quicker reflexes and react faster than women. T—F—
8. Men have a greater capacity for happiness than women. T—F—

—John Gibson in *This Week Magazine*.

MULTIPLE SCLEROSIS

SIR SELWYN SELWYN-CLARKE,
M.C., M.D., F.R.C.P.,
(Governor of the Seychelles)

THE incidence of multiple sclerosis is world-wide, with a greater proportion of patients in the northern hemisphere, the reverse of Hodgkin's disease.

Cause still unknown.—Regarding the actual cause of the disease, one theory is that it is of an infectious character, although it cannot be transmitted to animals and does not behave like an infectious disease in relation to contacts. Nor do patients with multiple sclerosis have fever, an increase in the number of white cells in the blood or increased rate of sedimentation of red blood cells and they do not develop immunity changes in the blood serum.

At one time high lead content of the soil in the area in which the patient was living was thought to be a cause, the change in the fatty sheath of the nerves to be found in patients could be accounted for by the ingestion of a trace element.

Perhaps the theory commanding the widest support is the one that attributes the changes occurring in the sheath of the nerves affected to an allergic reaction like asthma, hay fever or urticaria.

Family history undoubtedly has some influence on the incidence of multiple sclerosis.

Age at onset is of interest, the disease being rare in the first decade and seldom beginning after the age of fifty. Most of the cases start in patients between 20 and 35 years of age. As regards sex, there are proportionately more female than male deaths from multiple sclerosis.

Over-exertion and fatigue may both precipitate or aggravate an attack. Anxiety and emotional disturbances, grief and feelings of frustration have long been suspected of bringing on an attack. Trauma, accidental or in the form of an operation, is believed to have some influence in precipitating an attack. Abnormal reactions to blood transfusions, inoculations (and toxic drugs) are much more common among patients with multiple sclerosis than among normal controls. Fever may initiate an attack.

Symptoms are many and varied, but there is a tendency for them to be symmetrical and to reappear in the same form after an intermission. The illness often starts with a headache, vomiting and giddiness; there may be a weakness in one or more groups of muscles; a change often occurs in sensation, with pins and needles or a numbness and dead feeling of fingers and toes or in the arms and legs associated with an unsteady walk. Difficulty is experienced in distinguishing between hot and cold. There may be double or blurred vision and the eyes may move jerkily from side to side or up and down in nearly half the patients seen. Staccato speech may be

present; the picking up of small objects and doing up of buttons may be very difficult; muscle wasting takes place and there is a tendency for the patient to trip up on the edge of carpets; there may be a frequency in passing water.

Mental changes develop, there is an abnormal degree of cheerfulness and a tendency to laugh without cause, a sense of physical well-being not justified in the circumstances; or there may be an increased display of emotions, tears falling without adequate reason.

Most patients with multiple sclerosis die at home, often from bronchopneumonia, bed-sores or from an urinary infection. The working capacity of the patient and the degree with which he can move about at will gives some idea of the extent of the disease.

Treatment consists primarily of rest for a period of about six months.

Artificially produced fever, the administering of organic and inorganic arsenic, anti-histamines, or dilators of the blood vessels, have not been proved to effect a cure. Chlorpromazine sometimes reduces muscular spasm and phenobarbitone may help over difficult emotional crises. Liver and vitamin B₁₂ help to maintain good health, dichloramphenicol

controls secondary infection. Cystitis may need to be controlled by certain drugs, and constipation prevented. After relapse, complete rest is advised, followed by passive movements for the first two weeks and then graduated assisted exercises or exercises with sling suspension, and, later, spring resistance exercises. When weakness of the legs is marked the assistance of crutches or a stick is called for.

"Emphasis should be placed on those daily activities which involve self-care of the patient such as moving, turning, sitting-up in bed, dressing, undressing (including tying shoelaces and tie), washing, toilet activities, control of wheelchairs, getting in and out of the car, and so on. In connexion with these independent exercises of patients with multiple sclerosis, the value of artificial aids as hoists on beds, hand rails in the toilet and bathroom and along walls of rooms and corridors, suitable adjustment of furniture to enable the patient to reach shelves, adjustment of clothes such as replacing hooks and eyes and buttons by zip fasteners, special devices for holding objects, eating, drinking, picking up things and the widening of doors to the width of a wheel-chair, cannot be overstressed."—(*Health Horizon*, Winter, 1961).

Antiseptics are not Needed

We don't need them when cleaning is done properly. In fact, some antiseptics commonly used may cause chemical burns, and may even kill tissue. If an antiseptic is strong enough to kill "bugs", it also is strong enough to damage tissue and retard healing.—(*Today's Health*, Feb. 1961).

Cigarettes or Health?

WHEN will the tobacco manufacturers realize that by their efforts to stimulate the smoking of cigarettes they are doing the nation a disservice and threatening so to interfere with the health of the nation that Parliament may be required to take action in the matter? One does not need to be an alarmist, a faddist, or a kill-joy to be disturbed at the way things are developing. Whatever may be the final verdict on the role that cigarette smoking plays in the genesis of carcinoma of the lung, there is unanimous agreement in the medical profession that heavy smoking is bad for health. It affects the cardiovascular, respiratory and digestive systems. The recent emphasis on the association with malignant disease has, unfortunately, distracted attention from the other deleterious effects of cigarettes smoking. How many chronic bronchitics, for instance, realize that, as Dr. James Laurie pointed out in our December 1960 issue (*The Practitioner*, 1960, 185, 722), 'severe bronchitis is seldom found in one who has never smoked.'

In spite of this overwhelming evidence of the dangers of smoking, the tobacco industry almost doubled its advertising expenditure last year, and in the first nine months of the year spent £2.2 million on advertising.

Their future plans are even more ominous. According to the financial pages of a recent issue of *The Times*, (January 16, 1961): 'The years 1962 and 1963 seem to be particularly full of promise, other things being equal. In these two years the large crop of post-war babies will be reaching the age of persuasion. Teenagers already form a sizeable portion of the industry's sales, and it is noticeable that the manufacturers' advertising campaigns are tending to be directed towards this section of the population.' If this is the case, then what is the use of doctors, school teachers and social workers doing their utmost to prevent children acquiring this habit? What the tobacco companies and their shareholders have got to realize is that far too many people are smoking far too many cigarettes. Their frantic attempts to encourage this process are becoming anti-social; if they are not voluntarily curtailed, then Parliament will need to intervene. We have now reached the position where the shareholders of the tobacco industry cannot be allowed to *wax fat at the expense of the health of the rising generation*. Compulsion is odious but, if people persist in being anti-social, there is no alternative. Unless the tobacco industry rapidly shows a greater sense of responsibility to the community, Parliament will have no alternative but to act—say, by doubling the duty.

TB Resistance

In animal studies, diets and drugs which reduce thyroid activity also reduce resistance to tuberculosis, a team of Kansas City research workers reported to the Medical Association.

WHAT SLEEP MEANS TO US

DR. STANLEY B. WHITEHEAD,
London

YOU can live four times as long without food as you can without sleep. Our newer knowledge of sleep reveals it as a complicated process, and tries to explain why sleeplessness is so often a complaint in modern life.

Going to sleep is primarily a surrender of consciousness. Your conscious mind must relinquish its control and your sub-conscious, or innermost self, take over.

Physically, your body is ready to sleep when its energies are temporarily used up and it feels tired. The key in both the mental and the physical approach to sleep is relaxation, but it is far easier to relax physically, than mentally.

Nevertheless, it is natural to sleep, and Nature is always on your side in the winning of restful slumber. Sleep is a state in which physical and mental regeneration go forward. As you go to sleep, your senses and contacts with the outer world and its stimulation shut down. First, your sight goes, then your taste, and smell, hearing, and finally touch follow in succession.

At the same time, the functions of your body slow down to the lowest levels possible. Your blood circulation slows, and your pulse-rate is reduced by ten to thirty beats a minute. Your

blood-pressure falls by several points, up to 20 milli-metres of mercury; your basal metabolism slows by ten to fifteen per cent, with a corresponding fall in body-heat production, and body-temperature falls by half to one degree Fahrenheit.

Your skeletal muscles relax and lose tone and tendon reflexes are relaxed. The gastric organs—stomach, etc.—tend to be more active, however, and the skin pores become more dilated, and perspiration increases. Body-wastes accumulate more concentratedly in the eliminatory organs. In short, your whole body apparently clears itself of fatigue and its effects, to awaken refreshed to a new day of living.

Loss of sleep not only brings increasing fatigue, but profound psychological disturbances. Powers of concentration, memory, and co-ordination are progressively weakened. Two to three days without sleep can cause hallucinations, and even symptoms of schizophrenia, while few can survive eight to ten days of continued wakefulness.

The amount of sleep you require depends on your age, primarily, but also on your own individuality and aptitude for sleep. A new-born baby needs 18 to 20 hours sleep in 24; growing children 10 to 12 hours; teenagers 9 to 8½ hours; adults 6 to 8 hours; and old people 5 to 7 hours.

Once asleep, we do not slumber on unvaryingly through the night. Sleep has a rhythm and comes in waves. On falling asleep, you usually sleep deeply within the first three to four

hours, then enter a lighter slumber for about three hours, alternating back into deep sleep for a little while, which becomes more quickly, lighter again. If you waken up, and then go back to sleep again, you slip into deep slumber, and start again on the same cycle—which explains why you are so hard to waken a second time after the alarm has gone and been forgotten.

If you are physically active doing muscular work, you will be able to get along with less sleep than one whose job is largely brain work or emotionally stressing. It apparently takes us nearly twice as long to recuperate from mental work as from physical. Moreover, loss of sleep impairs mental ability far more quickly and more severely than it does physical capacities.

It is sometimes held that sleep at night is more refreshing than sleep in the day; but this is not true. You can sleep just as well in the day, when on night work, as *vice versa*, where conditions are conducive to slumber.

Some people can sleep more readily and more deeply at one time of the twenty-four hours than at another. Some go to bed late and sleep late, while others, if they are not in bed early, stay awake all night.

The most popular theory about sleep is that it is induced by a reduced blood supply to the conscious centres of the brain. The existence of a sleep centre in the base of the brain which induces sleep has been suggested as a major factor, while it has

also been suggested that an accumulation of certain fatigue-toxins act as a drug and cut short the waking hours.

You can stay awake, by keeping your muscles on tension. And the great secret of falling asleep is complete relaxation. Fitful, uneasy, and disturbed slumber always indicates that you are going to bed with tensions accumulated during the day. They may be emotional, rooted in worry, frustration, anxiety or unhappiness, or physical in that you may be overtired. Business efficiency demands good, recuperative sleep.

Some of the simple things that will enable you to sleep well are those which relax you before getting into bed. It is a good thing to ease the mental tension by relaxing with a suitable book, the radio or music. Many people find it helpful to take an evening stroll just prior to bedtime.

It is worth noting that you cannot be tensed emotionally or nervously when your body is relaxed. For this reason, a warm bath is helpful in releasing tensions, and helping your mind to "let go." It is better to have a light supper or digestible beverage before going to bed than to go hungry.

Bed itself and your bedroom should be a welcome place to go to. A warmed, not hot, bed is helpful to relaxation, and the more light-tight, and sound-proof your bedroom, the more soundly you sleep.

The key to good slumber is to relax quickly, immediately after

you are in bed. You then slip off into deep sleep, and on this depends the quality of your night's rest. Some would read a stiffish textbook or erudite tome that demands concentration to be followed and understood (as the brain wearies, sleep comes); others listen to soothing music.

Try to go to sleep lying on your side. The right side is usually best. Those who sleep

on their backs or their tummies, put undue strain on joints, tendons, and neck muscles. Then mentally relax your body from the toes upward, tightening and letting the muscles go limp and lax, while breathing evenly and fully. When your body is completely relaxed, your nerves relax, and your mind hands over to the unconscious self, and its powers of regeneration.—(*Good Health*, London, 6: 1960).

FIRST AID

CARL J. POTTHOFF, M.D.

Swallowed Objects

IF a foreign body is swallowed, it usually passes harmlessly along the food passages until expelled. This frequently occurs even with open safety pins taken by small children. Sometimes an object thought to have been swallowed has entered the air passages or lungs. Medical observation is always necessary to determine where the object is and whether it becomes lodged. Occasionally an operation or use of an extractor instrument is required. Symptoms may be absent unless the object is in the throat or oesophagus; then, pain, difficulty in swallowing, or a feeling of something stuck in the throat is usually present. At one clinic, swallowed items requiring removal by instrument extraction were (in descending order of frequency) bones, coins and discs, food, safety pins, buttons, nuts, seeds, shells, and toys. Causes are: careless preparation of food, improper chewing, the

habit of putting foreign objects into the mouth, and insufficient care in eating while wearing dentures.

What to Do

1. Take the patient to a physician. Even though symptoms are not present, the object may be lodged in the food passage, or possibly in the air passage. In the latter case it must always be removed unless coughed up.

2. Remain calm. The excitement and fears of bystanders may unduly frighten the patient. Eighty per cent of cases are children under 15. Drive safely while transporting the patient; the situation is seldom if ever of extreme urgency.

3. Avoid giving cathartics and bulky foods. If feeding is necessary because of some unavoidable delay in securing medical attention, provide the usual diet.—(*Today's Health*, March, 1961).

Sore Throats and Tonsillitis Happen at All Ages

MOST sufferers from tonsillitis are young. Quite well one day, the next day they are complaining of a sore throat, unable to swallow, looking flushed and feverish. The doctor says "Open your mouth! Say Aaaaah!" He holds down the tongue with spatula, shines a light, and there they are, two bulging bright red tonsils, one on each side, perhaps spangled with yellow spots.

Very young children may not complain. They just get feverish and refuse their food. The youthful throat is rather insensitive to pain and they will be unaware of tonsils which would make an adult shout blue murder. With middle-aged people, tonsillitis often comes on more gradually. The throat gets increasingly sore over several days, but the temperature may not rise.

The infected material in an inflamed tonsil spreads to the lymph glands just behind the angle of the jaw. These get stiff and painful. They may be just small tender lumps, or quite big swellings, but they enlarge to some extent in all cases. This is part of the bodily defences. It is much better for the infection to be held up and neutralized in these glands than for it to get into the blood stream and cause septicaemia.

Sometimes, however, it spreads from the tonsil into the

soft tissues of the palate just behind and above the tonsil, and an abscess forms there, known as a quinsy. It is very painful and easy to see. A red bulge on one side, pushing the uvula the other way. Fortunately it is usually quite a simple matter to lance it, and let the pus out.

The only conditions likely to be mistaken for tonsillitis are scarlet fever, diphtheria, and Vincent's angina. In the case of scarlet fever, a bluish-red rash develops on the trunk within twenty-four hours. As treatment is the same, a mistake does not matter much.

Diphtheria is very rare now, thanks to immunization. Instead of the high temperature, perhaps 103 degrees Fahrenheit, of tonsillitis, it is much lower, about 99 or 100 degrees. The child seems more ill, and there is a dirty grey membrane on the tonsil surface. Vincent's angina can look rather like diphtheria, but is much less dangerous.

Most cases of tonsillitis are due to a germ called the streptococcus, which luckily is discouraged by both antibiotics and sulpha drugs. A few injections of penicillin will cure the thing in a couple of days. There is, however, one snag in this.

When tonsillitis runs its normal course of a week or ten days, the body builds up an immunity to prevent any further attacks. When you cut it short this immunity does not develop, and a fresh infection may result in another attack at any time. There is therefore, room for discretion as to whether to use these drugs or not, and if they

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are used, whether to wait a day or two first.

In very mild attacks it may be worth while to leave it all to nature. In moderate ones, drugs may well be started on the third day, and only used from the first either in severe attacks or when there is great urgency to get back to work or school.

Gargling.—Apart from the so-called wonder drugs, some relief can be obtained by gargling with crushed-up aspirin, two tablets in half a tumbler of hot water. Rinsing the mouth out with weak bicarbonate gets rid of a lot of unpleasant discharge. Ice-cream goes down easily and is nourishing. Soup, custard, and junket can usually be swallowed, but solids cause pain. Pressing the hands on both sides of the throat just as the patient swallows will often make food go down more easily.

After an attack of acute tonsillitis, the tonsils should recover completely and return to normal. It must be remembered that they have a purpose in life. They are part of a ring of lymphatic tissue, including the adenoids, which surrounds the top of the throat and traps infection before it can get lower. If you didn't have tonsillitis, you might well have bronchitis or pneumonia instead. As long as they do recover each time, they are useful organs. But repeated attacks, or rather severe attacks may so damage them that they do not recover, and are left in a perpetual infectious condition, which we call chronic tonsillitis. In diagnosing this condition, size

is nothing much to go by. Many children have enormous tonsils which are healthy. Adults sometimes have shrunken things which can hardly be seen, yet are soaked in germs.

The appearance of yellow cheesy spots on the tonsils is suggestive but is quite often harmless and consists merely of dead scaly matter from the surface. When there is true chronic tonsillitis, the glands at the angles of the jaw are a bit tender. There is a red streak of inflammation down the fold of membrane in front of the tonsil, often there is a cough and unpleasant breath.

It is sometimes possible to get rid of chronic tonsillitis by painting the tonsils daily for a month with Mandl's paint, which is an iodine preparation. Massaging them with a finger-tip may squeeze out their contents, though apt to make one sick.

Nowadays tonsils are not removed as freely as they once were. It is normal for them to look large in childhood. After puberty they shrink and often become invisible in adults. So it is not justifiable to remove them merely because they look large. On the other hand, if a child has repeated sore throats and persistently enlarged glands in the neck, taking the tonsils out may do a world of good.

Immunity to disease is gradually built up during childhood and adolescence and the defence of tonsils, while an advantage in the young, is not needed when we are older.

Adenoids are another matter.

They haven't the room to spread themselves that the tonsils have, and can easily block up the whole of the space at the back of the nose. This results in mouth breathing and ear troubles. So, purely to relieve this mechanical obstruction, it is often wise to have them out, but to leave the tonsils alone. Parents may object to this, asking: "Why not have the whole job done while we are about it?" The answer is two-fold. The tonsils may still be useful, and removing adenoids is a much milder procedure, with fewer risks and a rather quicker recovery.—(*Family Doctor*, December, 1960).

Check Your Mental Health Now

Take your own mental pulse, says Dr. William C. Menninger, of Kansas, an authority on mental diseases if the answer to any of these questions is definitely "yes," you may be in need of medical help.

(1) Are you always worrying?
(2) Are you unable to concentrate because of unrecognized reasons?

(3) Are you continually unhappy without justified cause?

(4) Do you lose your temper easily and often?

(5) Are you troubled by regular insomnia?

(6) Do you have wide fluctuations in your moods, from depression to elation, back to depression, which incapacitate you?

(7) Do you continually dislike to be with people generally?

(8) Are you upset if the routine of your life is disturbed?

(9) Do children consistently "get on your nerves?"

(10) Are you constantly disgusted and bitter?

(11) Are you afraid without real cause?

(12) Do you feel you are always right and the other person always wrong?

(13) Do you have numerous aches and pains for which no doctor can find a physical cause?

(14) Do you feel like being left alone without company all the time?—(*Today's Health*, Feb. 1961).

"Are there completely happy people?"

No, we find no one whose life is, and has been, without some hard-hitting frustration or some profound sorrow. When a beloved parent dies, or a just-grown child—what door of escape is there? There is no way out of the grief except to live through it. For more than half of us, life is a matter of settling for a good deal less than we want. We know it; we've known it for years; and we are decidedly not happy at the many moments when we think about our losses, our disappointments and our never-will-be's. For such of us, life is never brilliantly happy. Unalloyed joy is an unknown or forgotten sensation. Too many hurts, big and little, have chipped the bright colors away.—(*Texas St. J. Med.*).

ANSWERS TO

"What Do You Know About the Sexes?" on page 101

1. *True*. We can hear the women's protests: "Hah! You should see my husband when he has a cold!" Nevertheless, in a study of over 5,000 men and women it was found that women had a far greater tendency to exaggerate virtually all types of complaints and ailments.

2. *False*. Psychological tests at one university showed that though women were no less evasive than men, where outright lies were concerned, men led the field.

3. *True*. Studies show that women tend to be attracted to men they can look up to intellectually. Men, on the other hand, tend to shy away from women who have more brains than they do. This doesn't mean that men are superior in general intelligence, but that men tend to "marry down," and women tend to "marry up."

4. *False*. Studies conducted by sociologists show that men have much more difficulty in adjusting happily to a second marriage than women. Divorced men become more "set in their ways," less willing to compromise, and expect their next marriage partners to do most of the adjusting.

5. *False*. Professor Leona Tyler, a leading psychologist,

evaluating the findings of scientific investigators, finds that the female begins to out-talk the male shortly after infancy and holds a verbal edge from then on. She talks more readily, longer and faster. But it is in verbal fluency, rather than in the grasp of verbal meanings, that females are superior.

6. *False*. Studies show that men are more restless by temperament than women and much more easily bored by repetitive action. They lack a woman's capacity to adjust the monotonous conditions. Possibly one reason why women are less bored by monotony is that they are more given to introspection and day dreaming.

7. *True*. Numerous psychological studies on reaction time show that when a man's senses warn him of approaching danger, he goes into action much faster than the average woman.

8. *False*. Studies show that women not only have a greater capacity for happiness than men, but also a greater capacity for unhappiness. According to one well-known psychologist, "Women experience the extremes of marital happiness and unhappiness more keenly than their husbands."

Century Mark

People seem to be so constructed that they can't expect to live beyond 100 years, at least with much fun, says Dr. Stanley R. Mohler of the Centre for Ageing Research, in Maryland. The major goal of research on geriatrics is not to find some fountain of youth, but to work out a way of living whereby people could "die young as late as possible."—(*Today's Health News*).

V. I. P. TREATMENT FOR BANANAS

HUGH NASH

[No Very Important Person ever had a journey more smoothly organized than this popular fruit from the tropics. People in Britain alone un-zipp 50 million every week].

THE banana was scarcely known in the British Isles before 1890. An occasional bunch had been brought back by captains of trading steamers from Madeira as early as 1878, but the banana was regarded as a rare tropical luxury.

From 1879 onwards a few bunches were shipped from the Canary Islands, but it was not until the advent of supplies from the West Indies that the banana became generally popular.

In March 1901, the first direct shipment of about 20,000 bunches of bananas from Jamaica reached Bristol.

From small beginnings, the business has grown and now 50,000,000 bananas are consumed every week in the British Isles.

In Jamaica, the Southern Cameroons and the low coastal regions of Central America, tropical jungle has given way to hundreds of square miles of banana plantations.

The cleared land is marked out so that the plants may be arranged in rows. Holes are dug about a foot deep and 15

feet apart, and in each of them is put a piece of banana root, weighing three to four pounds.

In the months that follow numerous shoots spring up from each of the "bits." The weak shoots are cut away and only the two strongest are allowed to grow.

The banana plant grows in an unusual way. When fully grown and ready to bear fruit, it reaches from 15 to 30 feet high and measures from nine to 16 inches in diameter at its base. It is, therefore, very often called a tree. It is not a tree because there is no wood in it. The trunk or main stem is composed of thick sheaths wrapped tightly together in overlapping layers.

The banana plant blossoms nine or ten months after planting. The stem that is to bear the bunch grows up through the centre of the trunk, comes out at the top and then bends over and downwards.

Each plant bears only one single bunch of bananas. It is made up of clusters called "hands," each with from 12 to 18 bananas or "fingers." A bunch normally carries 6 to 12 "hands."

Even when fruit is to be eaten in the tropics it is not allowed to ripen on the plant. The finest flavour is developed only when the fruit is cut green from the plant and ripened afterwards. Bananas are, therefore, harvested in a green condition.

Organization is the keynote of despatch from the tropical port where a cargo of 140,000 bunches is put aboard in 18 hours.

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At daylight on the day of the steamer's arrival in port the cutting gangs begin work. Each unit consists of a "cutter," and several "backers."

The cutter, using a knife on the end of a long pole, cuts into the plant a few feet below the bunch. As the plant bends, he steadies it with his pole, so that the bunch may swing down easily and come to rest on the shoulder of the backer who is waiting to receive it. Then the cutter, with a long sword-like knife called a "machete," severs the bunch from the plant.

The backer carries the bunch to the collecting centre. They are then wrapped in plastic tubes to protect them from scarring. From the collecting centre the fruit is loaded into padded railway trucks or lorries.

By the time the ship has docked, the first trainload is alongside and gangs of labourers start the loading operations. Elevators are run into position. These elevators are constructed in the form of an endless chain of canvas pocket into each of which a green bunch is placed and so carried into the hold below.

The vessels engaged in the trade are specially designed to

keep the bananas at a temperature of about 55°F. throughout the voyage.

Immediately upon arrival at the home-port, the cargo is discharged into railway trucks. The trucks are insulated, for it is essential on the final lap of the journey to the ripening rooms, to give the fruit the same protection that it has enjoyed during its long journey.

At the root of the banana's popularity is the fact that, coupled with its mellow flavour when fully ripe, it is a safe and clean fruit, because the skin of a banana forms a perfect seal.

Bananas should never be placed in a refrigerator, as this destroys their delicate flavour. Once this happens, the flavour can never be regained.

In the green state, they contain a large percentage of starch, but as they ripen this is changed to fructose or fruit sugar, which can be assimilated by the most delicate digestion. The skin turns in ripening to a bright yellow, and in another day or two brown spots will appear on the golden-yellow peel and the pulp will become softer and more mellow. At this stage the banana is ready for eating.—(*World Digest*, March 1961).

— "What is it to be 'normal'?"

It is to be unreasonable with one's spouse, or children, several times a week, yet try in a fumbling, half inept, but sincere way to make it up. It is to spend money foolishly, then work hard to stretch what's left till pay-day. It is to work all your life as a railroad man, wishing you'd finished school and gone into law, yet proud of your 25 years of service. It is to get drunk every week for years, then 'get religion' and stop drinking, start doing church work. It is to marry in haste, divorce in haste, and marry 5 years later to a person you love all the rest of your life.

Differences Between Cow's and Human Milk

MILK is a product of evolution designed specifically for the nutrition of infant mammals. It bridges the nutritional gap between intra-uterine dependence and extra-uterine independence. The same nutrients are present in the milk of all species, although in different proportions. Such quantitative differences appear to be an adaptation to the nutritive requirements of the young of each species.

At the beginning of this century, Bunge postulated that the chemical composition of the milk of each species was correlated with the composition of the newborn. Such a correlation, if any, is not apparent. At about the same time, Abderhalden suggested a parallel between milk composition and maturation rate of the infant mammal. However, Brody noted that the relationship "is complicated by many factors, evolutionary and physiologic. The situation is too complex for a simple generalization."

In spite of marked quantitative differences in the milk composition of different species, it is possible to adapt milk of one species for another. Much of the credit for successful modification of cow's milk for use by the human infant should go to the ingenuity and imagination of paediatricians. Perhaps some credit should be reserved for the great adaptability of the infant

subject. However, despite tremendous advances during the past 60 years, the ideal substitute for human milk still is not available.

TABLE 1
Gross Composition of Milk

Constituents	Gm./100 ml.	
	Human milk	Cow's milk
Water	87.6	87.3
Solids	12.4	12.7
Lactose	7.0	4.8
Fat	3.8	3.7
Protein	1.2	3.3
Ash	0.21	0.72

TABLE 2
Energy Distribution in Milk

	Human milk	Cow's milk
Total calories/100 ml. %	70	72
Fat	50	48
Lactose	40	26
Protein	10	26

TABLE 3
Ash Components of Milk

	mg./100 ml.	
	Human milk	Cow's milk
Calcium	33	125
Magnesium	4	12
Phosphorus	15	96
Sulphur	14	30
Iron	0.15	0.10
Copper	0.04	0.03
	Calcium phosphorus ratio	
	2.2	1.3

TABLE 4
Fatty Acids in Milk Fat

Fatty acids	g./100 g.	
	Human milk	Cow's milk
Saturated:		
C ₄ to C ₁₀	2.5	7.9
C ₁₂ to C ₂₀	45.7	53.4
Unsaturated, single double bond:		
C ₁₀ to C ₁₈	40.1	36.8
Total	88.3	98.1

TABLE 5
"Essential" Fatty Acids in Milk Fat

	g./100 g.	
	Human milk	Cow's milk
Linoleic	8.3	1.6
Linolenic	0.4	...
Arachidonic	0.8	1.0
Total	9.5	2.6

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TABLE 6
Fat-Soluble Vitamins in Milk

	Human milk	Cow's milk
Vitamin A, meg./100 ml.	53	34
Carotenoids, meg./100 ml.	27	38
Vitamin D, U.S.P. 100 ml.	0.42	2.36
Vitamin E, mg./100 ml.	0.56	0.06
Vitamin K, D-G units/100 ml.	28	100

TABLE 7
Water-Soluble Vitamins in Milk

Constituent vitamins	Human milk	Cow's milk
Ascorbic acid, mg./100 ml.	4.3	1.6
Biotin, meg./100 ml.	0.4	3.5
Folic acid, meg./100 ml.	0.18	0.23
Niacin, meg./100 ml.	172	85
Pantothenic acid, meg./100 ml.	196	350
Pyridoxine, meg./100 ml.	11	48
Riboflavin, meg./100 ml.	43	157
Thiamine, meg./100 ml.	16	42
Vitamin B ₁₂ , meg. 100 ml.	0.1*	0.56

* Personal communication from Dr. L. J. Daniel.

TABLE 8
Protein Distribution of Milk

	g./100 ml.	
	Human milk	Cow's milk
Casein	0.4 (33)*	2.8 (85)
Lactalbumin	0.3 (25)	0.4 (12)
Lactoglobulin	0.2 (17)	0.2 (6)
Whey protein	0.6 (50)	0.6 (18)

* Per cent of total based on total protein content of 1.2 and 3.3 g./100 ml. respectively.

TABLE 9
Nitrogen Distribution in Milk

	mg./100 ml.	
	Human milk	Cow's milk
Protein	188 (83)*	518 (94)
Non-protein	39 (17)	32 (6)
Non-protein components:		
Creatine	3.3	3.1
Creatinine	2.2	0.9
Urea	32.2	15.1
Uric acid	4.6	1.9

TABLE 10
Indispensable Amino-Acids Pattern in Milk*

	Human milk	Cow's milk
Histidine	1.3	1.9
Isoleucine	3.3	4.6
Leucine	5.4	7.0
Lysine	3.9	5.6
Methionine	1.2	1.8
Phenylalanine	2.6	3.6
Threonine	2.7	3.3
Valine	3.7	4.9
Arginine	2.4	2.6

* Tryptophan—1.0

TABLE 11
Sulphur-containing Amino-acids in Milk

	mg./100 gm.	
	Human milk	Cow's milk
Methionine	28	86
Cystine	27	31
	Ratio of sulphur-containing amino acids to tryptophan	
	2.4:1	2.4:1

As will be evident from the eleven statements given above, milk is a substance with great chemical complexity. Qualitatively as well as quantitatively, human milk differs considerably from cow's milk. Although the two types of milk are comparable in total caloric value and percentage of calories derived from fat, human milk provides only 10% of the calories as protein and 40% as lactose. Cow's milk furnishes the latter two nutrients in equicaloric amounts. Striking differences in the pattern of minerals, fatty-acids, vitamins, and several amino-acids are evident. Some of these differences may be significant in the inter-related biochemical and nutritional roles of certain constituents of milk. Consequently, they also may be significant in the utilization of milk from one animal species by another.—(J.A.M.A., 14-1-1961).

Health Centres in Japan

A feature of Japanese public health is the health centre. There are now 789 of these centres, under control of the local government, but with the national Government sharing the costs. The functions of the health centre include health education, nutrition, sanitation, prevention of tuberculosis, control of venereal and other communicable disease, insect and rodent control, maternal and child health, dental hygiene, immunizations, school health and birth-control. The health centre, under its director, who must be a doctor, is the main bastion of preventive medicine and public health.

ACCIDENTS : AND THEIR PREVENTION At VARIOUS AGE-PERIODS

How to prevent baby accidents.
Teach safety to your children

THE Accident Prevention Committee of the American Academy of Paediatrics in Illinois, has published a group of leaflets to help parents take care of their children:—

A. Birth to four months:—
(Remember: Baby needs protection—full time).

(1) Check bath-water with your elbow to make sure the water isn't scalding. (2) Toys should be too large to swallow, too tough to break, and should have no sharp edges. Keep pins and other sharp objects out of reach. (3) Beware of smothering. Don't use filmy plastics for bed coverings; zippered bags, and pillows can be dangerous. (4) The baby's bed and playpen are the only safe places for him to be alone. Never, not even for "one second," leave baby alone where he may wiggle free and fall onto a hard surface or into water.

B. Four to seven months:—
(At this age baby grasps and moves more).

(1) Don't leave baby alone in the bath for any reason—it takes only seconds to drown. Keep him away from faucets. (2) Small objects—buttons, beads, and coins must be kept out of reach. Rounded toys of smooth wood or plastic are safest.

C. Seven to 12 months:—(Baby now sits, stands, crawls, and may even walk. He puts everything into his mouth. He can pull himself up, and everything else down).

(1) Medicines and poisons should be put back into a locked cabinet immediately after use.

Don't take chances here. All medicines, even aspirin and liniments can cause poisoning. When misused, many common household substances are also poisonous: cleaning products like bleaches, detergents, caustics, polishes, and waxes; kerosene, and fuel oils; paints, turpentine, paint removers and thinners, pesticides, mothballs, weed killers, and fertilizers; cosmetics (including nail-polish, hair sprays, and permanent wave materials). (2) Keep these products out of reach until youngsters can be taught their proper use. *In case of poisoning:* Call your doctor or nearest hospital emergency room at once for advice as to immediate care. Take the original container of poison with you to the doctor's office or to the hospital. (3) Hot liquids, hot foods, electric cords on irons, toasters, and coffee pots should be kept away from baby. Place guards in front of open heaters and floor furnaces. (4) Be especially careful of table cloths that hang too low. (5) Fence in stairways. Get safety plugs for wall sockets. Scissors, knives, and breakable objects should be kept out of reach. Pad sharp-edged furniture.

D. One to two years:—(At this age, the child investigates. He climbs, opens doors and drawers, takes things apart, and likes to play in water).

(1) Fasten securely doors which lead to stairways, driveways, and storage areas. Keep screens locked or nailed. Put gates on porches and stairways. (2) Fence the play yard. Never leave the child alone in the tub, wading pool, or around open or frozen bodies of water. Even shallow water is dangerous.

E. Two to three years:—(The child of this age is fast. He is impatient with restraint. He imitates—he wants to do things alone).

(1) Accidents are more frequent at this age. The child may be hurt by bats, hard balls, bicycles, and rough play. Supervise play when possible. (2) Store dangerous tools and garden equipment in a safe place. (3) Keep

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child away from street and driveway with a fence—and firm discipline.

F. Three to six years:—(Now the child starts to explore the neighbourhood. He'll climb trees and fences, ride tricycles and bicycles, play rough games. Most of the time he is out of sight).

(1) Check on his activities frequently. Be sure to inspect his play areas for attractive hazards—old refrigerators, construction, rickety buildings. (2) Teach safe ways to handle tools and kitchen equipment—teach the danger of open flames. (3) The child must learn obedience where traffic is concerned. (4) Teach the danger of water—start swimming instruction if possible.

G. Six to 12 years:—(The child may be away from home many hours each week. He is participating in active sports, is a part of a group, and will "try anything once." He is on his own more and more and will need the proper knowledge to keep himself safe).

(1) Teach him safe bicycling. Check with your local police or safety department for free copies of "Rules of the Road." (2) Store firearms safely, handle them carefully, and teach your child how to handle guns and bows and arrows. (3) Provide adult supervision for boating, swimming, and other sports. (4) Teach safety. Discipline and guidance are essential.—(Dennis Orphan in *Today's Health*, March 1961).

The Truth About Gas and Germ Warfare

JOHN HUBBELL

[Facts every one should know in the context of present-day world events]

WHEN the Allied forces invaded Germany in the Second World War they discovered something that, had they known it earlier, might well have altered the invasion plans. Stored in ware-houses, they found, were tons of a new and diabolical gas—a colourless and almost odourless killer called *Tabun*. It attacked the human nervous system through the lungs or eyes, causing death within one to five minutes. If the eyes and lungs were protected, liquid droplets of *Tabun* would rapidly penetrate clothing and be absorbed by the skin, bringing death within ten minutes to two hours. There was then no effective antidote.

Hitler's huge stock piles of

Tabun however, remained untouched while the Allies swept across Europe.

But the story, unhappily, does not end here. When the gas was found, Britain and the United States took most of their share out to sea, and dropped it. The Russians took their share home, along with the dismantled laboratories where the stuff had been made and the scientists who had made it. They have kept on producing it ever since.

Nor have the Soviets confined their work in the military chemicals field to nerve gas. Intelligence estimates indicate that in recent years they have scored breakthroughs across a

THE TRUTH ABOUT INSOMNIA

“FOR thousands of years people have speculated about sleep,” said Dr. Anne Dally in a recent BBC broadcast. “Poets have exalted it. Philosophers have discoursed on it and in recent years scientists have studied it. But we still don’t even know what it is.” In their attempts to find out, scientists were now concentrating on a study of the *waking* mechanisms of the brain, but for the average person the problem still was how to get enough sleep. Insomnia was one of the commonest troubles of today.

Dr. Dally, who is a general practitioner and mother of five children, went on to say that the commonest cause of insomnia was the attempt to get more sleep than the individual really needed. The old idea that every adult needed seven or eight hours’ sleep in the twenty-four was based on an average figure; some people needed rather more, others less. The so-called effects of lack of sleep were often the effects of worrying over not sleeping. She had had com-

plaints of insomnia from patients who spent ten hours or more in bed, and very few people could sleep for as long as that. Once a sufferer accepted the fact that he, or she, might need very little sleep, the insomnia was cured and he felt better. Sleeping pills if taken regularly over a long period could often cause the very symptoms that the patient attributed to insomnia; some patients became addicted to their sleeping pills, and even had to have pep pills during the day to prevent drowsiness.

Genuine insomnia was always caused by some other trouble, Dr. Dally said, for example, physical pain, bad sleeping conditions, or psychological upsets. Sleeping pills gave most help to people suffering from acute anxiety or excitement, shock or bereavement. Chronic anxiety and depression were psychological illnesses. In general, she thought that if children or adults slept badly it was because they had got into bad habits or led unhealthy lives. She recommended a brisk walk before going to bed, and possibly a hot drink, “for fresh air and exercise are the best possible bringers of good sleep and most of us get far too little of them.”—(*The Weekly Mail*).

Hospitals in Japan

Doctors in public hospitals in Japan are full-time salaried officers. They have no right of private practice. This applies also to the larger private hospitals; they have their own paid staff, and outside practitioner has no entry to them. There are in addition a large number of smaller hospitals owned by doctors. A special feature is the so-called clinic of less than 20 beds, where patients are not to be held more than 48 hours. The big public hospitals are grossly over-crowded. Many new buildings are under construction, and those recently finished are first-class institutions with good equipment and the latest technical facilities. There are no separate maternity hospitals; maternity services are a part of the general hospitals. —(*Med. J. Austral.*, 24-9-1960).

Tonics and Appetizers

My operation was so minor that it was almost dull, but the second day afterwards I noticed a bruised spot above one knee and another near the collar bone. I asked the nurse about them.

"I'm not sure," she began. "But those operating tables are small, and when all the students crowd round, a few have to lean their elbows on the patient to see what's going on. Only two sore spots? You're lucky!"—(Mary Elliott).

A university student was puzzled about the proper way to address his English professor.

"Should I call you 'Dr.'?" he asked, "or 'Mrs.'?"

The professor smiled. "Mrs.," she answered. "I worked harder for it."—(E.D.)

On our wedding night we booked into an attractive-looking motel. The man at the office told us that all they had left was the Honeymoon Cottage—and we couldn't resist saying that was just what we were looking for.

Checking out the next morning, I told the clerk I thought the *decor* in our cottage was particularly attractive.

"They're all alike," he informed us. "We call it the Honeymoon Cottage because the television set is broken—and I'm darned if anyone has noticed it!"—(Mrs. John Morrison).

Once a fellow used to take his secretary on trips and call her his wife.

Now, with expense accounts, he takes his wife and calls her his secretary.—(Quoted in *Time*).

A friend of mine reports that his 15-year-old son, after only six dates, has bought a little black book for telephone numbers. On the cover the boy has confidently written, "Vol. I."

Deft Definitions: Gruesome: A little bit taller... Corpse: A human been... Engineer: A train approaching... Nitrate: Lower price after six o'clock.

A farmer was much annoyed by fast drivers who speeded past his property, endangering his children and chickens. At first he didn't know what to do—then he had an idea. He put up a large sign that slowed them down to a crawl, immediately. It said: "Nudist Camp Crossing."—(S. M.).

Last summer, in an amusement park, a puzzled visitor noticed an ancient man on one of the rides that make a speciality of

turning one's stomach over. The old man kept taking ride after ride though it obviously made him sick, and the ticket-taker never asked him to pay for the next ride. After ten minutes, curiosity got the better of the visitor, and he walked up to the old man and said,

"Excuse me, do you find this ride particularly exciting?"

"Exciting!" said the old man, "I hate it: it makes me feel like vomiting."

"But then, why do you take all these rides?"

"Well," the old man answered, "the man who owns this concession owes me \$10, and I'm going to take it out in rides, if it kills me."

A Texas rancher and his wife walked into a bank with a huge sack of silver dollars.

"I want to deposit this cash. It adds up to \$65,000."

The teller said, "It will take two hours to count this."

"All right," said the rancher, "I'll be back after lunch."

When the couple returned, the teller said, "I'm sorry, sir, we have counted these silver dollars four times, and each time we get only \$60,000."

"You see, I was right," said the rancher to his wife, "we brought the wrong sack."

The mother of the family announced that on every Saturday a prize would be given to the most obedient member of the family.

All the children protested, "That's not fair. Daddy will win it every time."

The teacher asked a little boy how old a person would be who was born in 1920.

The boy asked, "Man or woman?"

A certain tribe in Africa punished murderers by making the murderer assume his victim's personality, receive all his property, including his widow, and take over his position and rights.

April fools' day is called cuckoo-day in Scotland, fish-day in France, doll-day in Japan, and boob-day in Spain.

Homer and Socrates, two of the greatest writers of all time, never wrote a line. Their entire output was committed to memory. Neither of them could read or write.

The ant has the largest brain in proportion to its size in the animal kingdom.

whole new spectrum of chemical and biological weaponry (CBW).

Q. Exactly what are these new weapons, and what are the defences against them?

A. The newest chemical agents under study are those which do not kill or make men even mildly uncomfortable, but which can, with lightning speed, destroy men's ability to function. One group of them—the psychochemicals—can cause strong men to grow timid, or can create a languorous apathy which renders men utterly unresponsive to the most urgent stimulus, such as attack by an enemy or other danger.

A second group incapacitates men physically, without pain. A third group of chemical agents can so upset a man's ability to integrate time and distance that it becomes impossible for him to drive a vehicle or operate a weapon. Or a long, deep sleep can be induced; or the victim can be temporarily paralysed or made blind or deaf. Unless administered in unrealistically huge doses, none of these new chemicals is fatal. They are odourless and colourless. The deadliest chemicals are the nerve and blood gases. Tabun is believed to be the standard Soviet nerve gas. The U.S. nerve gas is *Sarin*, which has no odour and is more potent.

Two blood gases, hydrogen cyanide and cyanogen chloride, act about as quickly as the nerve gases. These, too, are colourless, but have a peach-like odour. They can be delivered by the same types of munitions and also by the individual soldier using a hand grenade. They literally suffocate the body within 15 minutes of inhalation of a lethal dose by locking oxygen in the blood-stream, preventing its transfer to body tissues.

A third blood-gas is *arsine*, also colourless, but with a mildly garlic-like odour. This is a delayed-action gas which destroys the kidneys and liver by robbing them of blood. Depending on the concentration, it may kill within two hours or it may take as long as 11 days.

Still another group of gases are the blister agents—distilled mustard, nitrogen mustard and lewisite. These agents are rapidly absorbed through unprotected skin, and if inhaled will fry the respiratory and digestive tracts, lung tissue and any other internal organs they reach.

Now let's look at some biological weapons:—Bacteria can infect men with anthrax, bacillary dysentery, undulant fever, cholera, diphtheria, tularæmia (rabbit fever), bubonic or pneumonic plague, typhoid fever, tuberculosis. The rickettsiæ—bacteria-like micro-organisms usually carried by lice and ticks—can induce various kinds of typhus and a high fever with a rash; there are viruses which cause several different types of encephalitis, smallpox, yellow fever, dengue fever, hepatitis. A botulinum toxin causes botulism, a painful, paralytic and usually fatal disease.

Such weapons can be ground into fine, cloud-like mists, powders or dusts and sprayed out into favourable winds. They can be carried in adapted conventional munitions. Many can be introduced in streams where men would bathe or obtain drinking water. Infected animal-life—rodents, ticks, lice—can be parachuted, ballooned or secretly carried deep into enemy territory. While chemical agents create casualties quickly and seldom hang on in an area more than a week, biological weapons which cannot be seen, smelt, tasted or felt, take longer to act, but some can stay alive and potent for years.

The U.S. Army Chemical corps has developed a lightweight mask that will protect a man against CB agents entering through the eyes, nose or mouth. An atropine hypodermic for field use by the individual soldier is nearing readiness. Should a man lose his hypodermic or fail to make the injection in time, he might still be saved by a new battlefield resuscitator with which one medical orderly can

apply artificial respiration simultaneously to a dozen men. A fibre diffusion board is being developed for protection in fox-holes and bomb shelters: charcoal and other filtering materials screen out from the air the tiniest aerosol particles, liquid droplets or toxic vapours. The U.S. Army has developed some practical items of protective clothing.

For protection against toxic chemicals, one can buy an excellent gas mask in the Soviet Union for about Rs. 65. And every citizen is now compelled to take 20 hours of intensive anti-CB-warfare training.

The rumour, nourished by ill-informed Press reports, that a few ounces of certain chemicals could kill millions, that biological weapons could induce raging epidemics in populated areas, is sheer nonsense. It is no more possible to kill millions with a few ounces of any chemical than it is to distribute a few ounces of water among millions.

No known CB agent is fatal if treated quickly and properly, and troops ready for a CB attack can survive it. CB weapons do not take the place of nuclear or conventional weapons: they are an adjunct.

The Free World can no longer afford the luxury of ignoring such weaponry. It is a hard,

real fact of military life. We must learn to live with it and see to it that such weapons are never used against us. Says General Stubbs, "The surest way to deter anyone from using them is to develop a CB arsenal so strong that no one will dare to force retaliation."

At Porton Research Establishment in England, British scientists are working on chemical weapons—but solely to develop "effective defence against gas attack." There is close collaboration in this field between Britain, the United States and Canada. British troops are not trained in the use of chemical or biological weapons, although war gases such as mustard gas and phosgene are occasionally used in military exercises to give troops experience and confidence in their defensive equipment. The current service respirator is said to "afford adequate protection" against biological weapons.

The War Office says that under present policy, Britain would *not* use chemical or biological weapons except in retaliation; is *not* manufacturing psychochemicals or blood gases for military purposes; but *has* developed at least one vaccine to immunize troops in the event of bacteriological attack.—(*Reader's Digest*, April 1961).

The Need for Sleep

To determine how much sleep you need, stay in bed as long as you like during a 24-hour period, writes Dr. Harry E. Carnes, editor of *Therapeutic Notes*. If you find that sleeping two to three hours more than usual makes you feel more refreshed, it might be that you are habitually depriving yourself of sleep. Members of an Arctic expedition who were allowed to sleep as long as they wished each day averaged 7.9 hours sleeping time. Sleep needs vary among individuals.—(*Today's Health News*).

What's New in the News?

Eighteenth Century Doctor's Bill

A doctor's bill to George Washington for £27-8-9d fetched £430 at a New York sale on the first American President's birthday anniversary in 1961. The bill, bought by a dealer, itemized visits between 1786 and 1788 and showed that the doctor was paid partly in barrels of fish.—(*Daily Telegraph*, 24-2-'61, via *B.M.J.*, 22-4-1961).

Cooking of Beans

In Spain, where the cooking of beans is really expert, they have a culinary proverb: "Hot water frightens beans, and turns them hard." The Spanish method of cooking beans, which I have proved to be very good, is to put the beans into a pan with just enough cold water to cover. Bring very, very slowly to the boil, and as the water boils away add more cold water. Salt is only added during the last few minutes of cooking.

"Psychoquacks" and fake mind-healers are swindling the American public out of an estimated \$ 600 million a year, and lack of state controls aids the impostors. In 44 states, anyone can set up shop as a psychologist without any qualifications or training whatsoever. [We in India, have some *Mantra-vadhees*, comparable to these American impostors].

A British doctor collected all advertising material he received from drug companies last year. Total weight: 111 pounds and 3 ounces; total postage: \$ 50 (Rs. 250/-).

Dr. Paul Dudley White says it is costing any person with heart disease too much money for treatment, hospitalization and drugs. The reason: More specialized medical care than is necessary, over-long hospitalization and a wider variety of diagnostic tests and drugs than safety requires.

Chronic Ailments

To greater or lesser degree, practically everyone has some chronic ailment, especially after age 40, according to Dr. Paul Chodoff of Washington, D.C. The "healthy" may react directly to the obviously disabled by open rejection, indifference, or even cruelty, or indirectly through excessive sympathy, prying curiosity, or pseudo-helpfulness which "prevents the patient from doing as much as he is able to do, thus making him more helpless than he actually has to be."

Placebo Effect

Among 70 patients, half received injections of a drug designed to reduce blood pressure. The others received shots of a totally useless and harmless liquid. Their blood pressure came down, too, and has remained lower for as long as three years of treatment, according to Drs. Raymond F. Grenfell, Arthur H. Briggs, and William C. Holland of the University of Mississippi. Blood pressure did not come down in other patients taking the placebo in tablet form, but pills of the real drug did work when taken by mouth.

Gastric Foreign Bodies

A case is reported by A. A. Kane and his colleagues (*J Amer Med Ass.*, 1960, 174, 2075) of a 56-year-old male, from whose stomach was removed a total of 258 articles as well as 'an amorphous mass of eroded metal sludge.' The man had been under 'custodial care' for twenty-four years with a diagnosis of dementia praecox, and there was no previous record of any physical illness. On this particular occasion he was investigated on account of pitting edema of the ankles, and was found to have a 'peculiar irregular mass in the left lower abdomen.' Laparotomy revealed this to be the metal-loaded stomach. The contents included 26 keys, 88 coins (totalling \$ 19.19), three sets of rosary beads (complete), six crucifixes and 16 religious medals!

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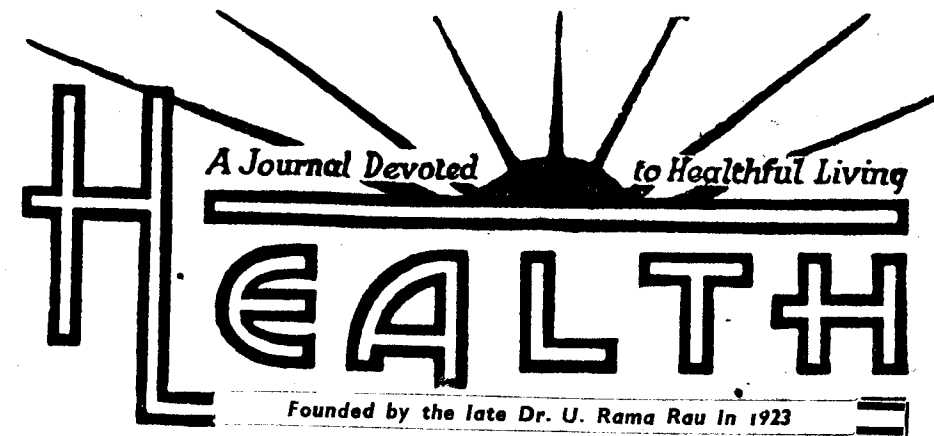
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WAR ON FLIES

Anti-Fly Day

It may be remembered that the Madras State's Health Minister said at a City meeting in April last that instructions have been received from the Union Government by the States Governments, that a specified day in the month of June should be observed as 'Anti-fly day.' Sri MANICKAVELU took the trouble to explain albeit humorously, that this celebration was not to curb the tendency towards kite-flying or the growth of air-mindedness, but the day specified should be utilized for waging a war against flies, the greatest of enemies to man's health, and for carrying on a mass campaign of destruction against these marauders of mankind. The Central Government in their Ministry of Health have apparently drawn up the national-scale programme for

this purpose, drawing their inspiration from the Anti-Fly Day campaigns of the Chinese who claim to have successfully achieved the mass elimination of all undesirable insects or flying varieties of pests.

We have thus, heard of the thorough, if ruthless methods adopted by them to get rid of the sparrows, which ate too much of the foodgrains that were badly needed for human consumption, and quite recently we have also been hearing of the similar successful crusade against flies which visitors to that country are asked to observe.

It is certainly a very good thing to cease to be pestered with flies which carry and disseminate infection on their hairy bodies and legs and through their painful bites. They are

doubtless a nuisance and they multiply with incredible rapidity constituting a real menace to mankind. It is essential that all attempts should be made to keep them out of homes, hotels and other eating places. They must not be allowed to increase and multiply at the enormous rate they do.

It is here that the public and Government should co-operate by adopting all necessary preventive measures. Being short-lived creatures the flies will disappear in the ordinary course, if their breeding places are destroyed and proper sanitary and hygienic surroundings are created and maintained in and around our homes.

The proverbial love and sympathy for all living things, so

characteristic of Indian tradition and religious observances, is reflected in the oft quoted phrase of "Not to hurt even a fly." It will perhaps require considerable persuasive and educative propaganda, from the Health authorities of the Government and quasi-Government bodies, before anything like the reported Chinese crusading success can be achieved in India but an all-out attempt at the elimination of a potential menace must be made.

More than the Anti-Fly day, an Antimosquito week or month is the crying necessity now, especially when these insects are beginning to resist the powerful poisons used to kill them and become inured to their destructive action.

Laws on Medicaments Urged

Legislation similar to that on poisons should be established to deal with medicaments. This was stated in evidence submitted by the Pharmaceutical Society of Great Britain to the Inter-Departmental Working Party on Legislation Concerning Medicines, set up by the Ministry of Health. The report said that the fact that existing legislation on medicaments is to be found in a variety of acts of Parliament is partly the result of developments which could not be foreseen and partly the consequence of a piecemeal approach to control. The latter feature of this legislation is its main weakness, and derives from the concept that, in general, drugs should be free from control and only particular medicaments or classes of medicaments should have legal restrictions placed on them.

The society believed that, instead, they should be subject to control as a general principle to which exceptions may be made. Drugs are, by their nature, likely to be harmful if abused, and legislation should provide for their control. Subject to the self-governing authority of the medical, dental, veterinary, and pharmaceutical professions, legislation should provide for the control of medicaments separate from the control of other substances and vested in the Ministry of Health, which should have power to make rules dealing, among other things, with the introduction, composition, production, identification, and distribution of drugs.—(J.A.M.A., 14-1-1961).

Doing what Comes Naturally

Frederick W. Glein of Streator recently reached the ripe old age of 100. To a reporter who asked the old man for the best way to attain a century Glein replied "keep breathing."—(Tit Bits, 1-4-1961).

EATING PROBLEMS IN ADOLESCENCE

CHARLOTTE M. YOUNG, Ph.D.,
Ithaca, New York

WE know that adolescence with its rapid growth and development is a period in which nutritional needs are great; furthermore, with the increasing number of younger marriages and earlier and more pregnancies, it should be one of preparation for the nutritional stress of the reproductive years during and immediately following adolescence.

First, what are the facts concerning teenage diets and nutrition? On this point we have quite a bit of concrete information based on many nutritional status studies, which included adolescent persons, made over the past fifteen years throughout the country. The nutrients which are lower than one might wish in the diets of adolescents are usually calcium, ascorbic acid, and vitamin A or carotene. The diets of adolescent girls also often are weak with regard to iron and thiamine. Younger children are better fed than older children. Adolescent boys are better fed than adolescent girls who, with the woman of child-bearing age, are the most poorly fed members of the family in relation to their recommended needs. The better diets of the boys are due in part to the greater volume of food consumed. Girls need less energy than boys. With fewer calories, each

food must be chosen carefully to be sure enough protein, minerals, and vitamins are included. A girl's diet offers less leeway for foods rich only in calories.

Furthermore, in studies of the blood levels of certain nutrients, 10 to 20 per cent of the children studied tended to have lower levels than one would like with respect to ascorbic acid and vitamin A. In terms of apparent lacks in the adolescent diets, the foods which most need emphasizing in nutrition education of the adolescents are milk, ascorbic acid-rich fruits such as citrus fruits and tomato juice, and carotene-rich green leafy and yellow vegetables.

There is a need for stress that milk is needed by older as well as younger children as it contributes to good health, vigour, vitality, and personal appearance. The major reasons why adolescents do not drink milk were:—(1) They consider it food for babies and children. (2) They think it helps to make them fat. Girls of this age are particularly weight-conscious. (3) Others in their group do not drink it. Milk was considered to be an appropriate drink with the family but soft drinks were considered more appropriate when with others of similar age. (4) They do not find it as stimulating as other beverages and (5) they do not consider it a social drink.

All persons who are concerned with influencing food habits, whether by educational or by other means, are forced to recognize their extremely complex nature and the effect

the cultural, economic, psychologic, sociologic, and biologic factors to which the individual is exposed have on his food habits. If this is true of adults at a more stable phase of life, how much more true it must be of the very labile adolescent!

Good food habits in adolescents are definitely related to general adjustment to life; the more mature the adjustment, the better the food habits. It is significant that several psychologists have found many more food-dislikes among neurotic young people than among non-neurotic controls. Also, in general, young women admit to more food dislikes than do young men.

Ways to improve teen-age nutrition.—First of all, the home and parents have primary responsibility and influence in the formation of food habits. Home is where the first reactions to food take place. The child is conditioned in his reaction to food by what he sees his parents and those about him do. Also the emotional atmosphere which plays such an important part in the formation of food habits is set in the home. Eating habits often are largely an expression of child-parent relationships. Much of child-parent conflict is reflected in the child's food habits. Many parents are overly concerned with their child's food habits; some are not concerned enough. It seems to me that good advice to parents with regard to their responsibility for feeding their children may be rather simply stated: (1) Know

what constitutes an adequate diet and some of the many ways by which it may be achieved; (2) do your best to provide an adequate diet in an attractive, well-prepared form and in sufficient variety to acquaint the child with many foods; and (3) then be quiet about food. Food should not become an emotional football. Few children in this country suffer from severe nutritional problems; many suffer from emotional conflicts which centre around the feeding process. A non-verbal example on the part of parents accomplishes much more than lecturing or haranguing about food.

The school probably plays the next most important role in the formation of food habits. The most effective teaching of good nutrition outside the home should be done long before adolescence as an integrated part of the school programme in the elementary grades. Hein has said that "good eating habits won't come by... pedagogical preaching any more than by parental nagging. Both only sharpen adolescent resistance and focus these on health. If health practices are to be bettered, they must be related to the deep down desires and drives of young people." The same might be said of medical preaching.

Arthur Roth, M.D., the Director of the Teen-Age Clinic at the Permente Medical Group of California, makes ten suggestions to parents or other adults who wish to help educate the teen-ager concerning proper nutrition:—

(1) Give the teen-ager credit for knowing something. (2) Give him a chance to talk and ask questions. (3) Allow him to accept or reject an idea while talking about it. Then he won't have to reject it by action. (This does not mean giving up your stand based on your knowledge just because the teen-ager says he doesn't agree with you. You can stick to your guns and still allow him the opportunity to dissent verbally). (4) Don't fall into the trap of "taking sides" in an argument between generations that probably is not really based on food. (5) Don't force-feed food or ideas to teen-agers. Force will make them resist or become more childish and less able to be responsible adults. (6) Don't be afraid to express your honest feelings about what is important. Adolescents don't really want to be "strictly on their own" yet. They are not ready for absolute responsibility as long as they are living in the family home. (7) The best teaching is by example, not by talking. How many of us have

fruits and vegetables at our coffee breaks, instead of doughnuts or a candy bar? 8. Good nutrition is a long-term thing, not a meal-by-meal or even a day-by-day emergency. 9. There is no perfect food (even milk has detractors who worry about too much calcium, or too much cholesterol, or milk's constipating effects, or its strontium-90 content!). Yet there is some food value even in the snacks we worry about; they contain proteins as well as carbohydrates and fats). (10) Aim for acceptance of one's self instead of going along with an adolescent's dream/wish. Time and energy are often wasted wishing for, or investing in, magic promises to achieve ideal health, ideal nutrition, an ideal mate or an ideal world! That time and energy could be much better spent utilizing to the fullest what is available in this problem-filled world.

These suggestions have the ring of one who has dealt with many teenagers.—(*New York State J. Med.*, 15-3-1961).

The Hand of God

Life stripped of its religious significance is meaningless, hopeless, pointless. And so the Church and the temples in their great wisdom, have preserved these ancient festivals of remembrance. The world has taken them over for its own purposes, but it cannot efface what they stand for.

You may not want to be reminded of these things, but you cannot escape them. No matter how bright your path in life may seem without God, sooner or later a shadow will fall across it and, looking up, you will see the hand of God.—(*Tit-Bits*, London, 15-4-1961).

Electronic Brain

More than £ 1,000,000 will be spent by the American Stock Exchange on an electronic "brain" which will answer inquiries by teletype or telephone from any part of the United States. It will take about two years to complete the installation, which will supply information about prices on any listed stock, volume and the number of shares bid and offered.—(*Tit-Bits*, London).

ASPIRIN

GABRIEL V. JAFFE, M.B., B.S.

THE word "Aspirin" conveys different things to different people. To the chemist, it is a combination of carbon, hydrogen and oxygen atoms- $\text{CH}_3\text{CO}_2\text{H}$ - CO_2H . To the doctor, it is a safe and simple means of treating numerous conditions from fevers to rheumatism. To the patient, it is often a quick cure for a troublesome headache, and to the manufacturers it is a money-spinner comparable only to that of sedatives and stimulants.

"Aspirin" is a trade-name which is only sixty years old, but before it was registered by the German company which first produced it in this proprietary form, it was known to the chemist over one hundred years ago as *Acetyl-salicylic acid*. The name aspirin is derived from *Spiraea*, a family of shrubs and one of the natural sources of salicylic acid. This substance is found freely in nature, especially in trees like the willow, birch and olive, and in jasmín bushes and in rye, wheat and sugar cane. The benefits of this chemical were known all over the world even to the primitive Hottentots and Red Indians, as well as to men of learning like Hippocrates, the father of Medicine, Pliny the Elder, and Galen, who treated with willow, poplar and madder many of the complaints that are treated with Aspirin today.

Aspirin remained scarce be-

cause of a shortage of salicylic acid and during the early days of the 1914-19 World War frantic appeals were made by British producers for the necessary raw material from abroad. Later, salicylic acid was manufactured in England to satisfy the demands of the expanding production of aspirin. Today, it is sold as acetyl-salicylic acid and as aspirin; often it is mixed with other drugs of various kinds in a wide range of proprietary tablets.

Aspirin can probably claim to be the most valuable and widely used drug of all. It relieves pain, it eases headaches, alleviates rheumatism and reduces fever, and most people have had occasion to be grateful for its aid and help at some time or other in their lives. Nearly four thousand billion tablets of aspirin are consumed in Britain alone every year. This constitutes over three million pounds weight. In the United States, over nine million pounds of aspirin are consumed yearly, sufficient to treat six thousand billion headaches.

[Note.—The quantity of aspirin and its combinations consumed in India must also be of or near the same order as in these 2 countries.—Ed. HEALTH].

Fortunately, it is a comparatively safe drug, they say. A few people have an allergy to it but most cases of aspirin-poisoning occur amongst people who have taken an over-dose. It is a colourless, odourless, crystal or white crystalline power with a slightly acid taste. Because of its low toxicity, cheapness and ready availability, it is the most commonly used of all pain-relieving

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drugs for the relief of the less severe types of pain such as headache, neuralgia, neuritis, rheumatic joint-pains and muscle pains. Where additional effect is required, it is frequently employed in combination with caffeine, phenacetin or codeine, usually in tablet form or in conjunction with a barbiturate when a sedative effect is also required.

In spite of the introduction of cortisone and its derivatives, aspirin still holds its place as one of the most valuable drugs in the treatment of acute rheumatic fever. The mechanism of its action is not understood but within twenty-four to forty-eight hours there is usually marked relief of pain, swelling and redness of the affected joints with reduction in fever and pulse-rate. It is also effective in the treatment of early rheumatoid arthritis. In the treatment of colds and influenza, aspirin is of value for the reduction of temperature and relief of the headache and joint and muscle pains but has no effect on the causal infection. In these conditions, and in other acute febrile diseases, it used to be combined with Dover's powder. It does not influence the course of the common cold or upper respiratory infections but makes the patient more comfortable by

reducing fever and relieving headache and muscle aching.

Complications of treatment are rare and are usually due to an idiosyncrasy towards salicylates. The allergic response may consist of a skin-rash or generalized sensitivity reaction with swelling of the face and irritation of the stomach but people who react badly to aspirin often have a history of allergic disease, especially asthma. Occasionally, toxic effects may follow repeated administration of large doses. These consist of dizziness, ringing in the ears, headache, thirst, sweating, nausea and vomiting. Aspirin is also known as a gastric irritant and may give rise to indigestion, heartburn and gastric hæmorrhages. The greatest danger lies in over-dosage for children so like all other medicines, aspirin tablets should be kept well out of children's reach as a safety precaution. The usual tablet is a 5 grain one which costs a farthing.

Treated with respect, aspirin is a boon to mankind and a useful ally in helping millions of people everywhere every day, and despite the daily discovery of new drugs, it will in all probability remain pre-eminent in its own sphere for years to come. —(Health Horizon, Spring, 1961).

Hypoglycæmic Onions

As long ago as 1923, Collip reported that *Allium cepa*, the common onion, contained a hypoglycæmic agent. H. D. Brahmachari and K. T. Augusti (*F. Pharm. Pharmacol.*, 1961, 13, 128) have now followed up this work and report that light-petroleum-soluble material from the onion has a hypoglycæmic action. When fed to rabbits, an ethyl-ether extract of this fraction had a hypoglycæmic potency equal to 76.6% of tolbutamide.

Methods to Find and Teach Children with Eye Defects

THE teacher's contributions to eye health were emphasized by Dr. C. Morley Sellery in setting forth a five-point school programme. He was formerly director of health education and health services for the city schools in Los Angeles. A well-trained, observant teacher will detect a high proportion of pupils with visual defects of sufficient severity to cause visual discomfort or serious eye strain. The teacher would refer such pupils to the school nurse or physician for vision screening or, if such services are not available, would inform the parents directly.

He believes there is danger of ascribing to batteries of screening tests a value they do not have and in so doing overlooking or failing to encourage teacher observation.

A related feature of the eye health programme, according to Sellery, is a strong unit on eye health as part of the health education programme. Instruction should cover care and protection of the eyes, simple anatomy and physiology, types of visual defects, and importance of the eyes in gaining an education. For adequately trained teachers, he recommended that school districts provide on-the-job training through workshops, institutes, and nurse-teacher conferences, since "teacher-training institutions vary widely in the quality and extent of

teacher-preparation in these areas."

The eye-health programme should also include an environment conducive to eye-health and optimal visual efficiency, vision screening and referral of children requiring eye care, and special attention to the blind and partially seeing.

Though careful not to over-rate vision screening tests, they are important for the detection of "a significant number of cases of visual impairment needing attention that do not present obvious symptoms....and could not be detected even by an observant teacher or school nurse." However, he feels that ideally all children should have complete eye examinations by the family eye specialist at least twice before entering school and periodically thereafter.

Prevalent misconceptions:—Discussing more fully the partially seeing child, Katie N. Sibert, teacher-consultant for the schools of Stanislaus County, Calif., issued a plea to combat prevalent misconceptions regarding abilities and needs of visually handicapped children.

Terms such as "sight-saving" and "sight-conservation," she pointed out, are in direct opposition to the philosophies of authorities in the field of vision. She cited references which state emphatically that use of what vision one has is not harmful. In fact, according to one source, save it long enough and you won't have it to use.

It has also become evident, Sibert declared, that the "visual acuity" of the child often

appears to have little bearing on "visual efficiency." Many authorities believe, she said, that intelligence and physical, emotional, and social factors must be considered together with visual acuity before a true picture of "visual efficiency" can be ascertained.

The aim in working with the partially seeing child, Sibert indicated, is to give him a chance to learn to use the vision he has and to be sure that the child is free to function emotionally, socially, and educationally as well as his native ability will allow.

Another misconception is the

belief that all books for the child who is partially seeing must be in large type. Many of these children read regular print easier and faster than they read large print. Nor is it true, Sibert added, that optical aids and magnification devices will answer the educational needs of all children who are partially seeing.

To illustrate her view-point, Sibert described a child technically blind (7/200 and 5/200) who, as a result of co-operative planning and work of many people, is able to function satisfactorily in a regular school.—(*Public Health Reports*, February, 1961).

NASAL CATARRH

MAXWELL ELLIS, M.D., M.S., F.R.C.S.,
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THERE is an inexhaustible literature on the influence of the nose on the passions of man. Possibly because it is the most prominent facial organ, the nose seems to have excited interest from the very earliest times. It has been festooned by ornaments, sometimes to a grotesque extent; it has been splinted and deformed for ritual and other reasons; it has been slit or cut off as a punishment. To an ethnologist the varying shape of the nose is an important item in his data. To the sculptor, painter or writer it is a primary index of character or beauty. To the modern debutante or model it is something to be reshaped at whimsy, whilst to the modern psychologist it is some-

times the cause of his patient's difficulties. It has also long been known that the sense of smell lies in the nose. Holding the organ, or elevating it with the finger are time-honoured signals of repugnance at an offensive odour. Rubbing noses is a method of greeting in some primitive tribes, possibly involving the even more primitive function of detecting a friend or foe by his smell, as many animals still do.

Anatomy.—The interior of the nose is a Gothic-vaulted space divided into two by a central septum. To the outer walls are attached three scroll-shaped bones, the turbinals, set almost horizontally, sloping backwards. Opening off each nasal cavity

are several bony spaces known as sinuses. The whole of these areas are lined with a continuous membrane subserving the specialized functions of olfaction and respiration.

This seemingly simple membrane lining the human nose is in reality a complex functioning organ in constant action, which normally does well for us in many different conditions of climate and environment. Most of these conditions induce trivial changes in the membrane, usually passing unnoticed. Sometimes, however, the nasal activity is so marked that the individual necessarily becomes conscious of it.

The early stage of a common cold (which is an inflammatory reaction to a virus gaining access to the nasal membrane) is marked by a hot, dry and stuffy sensation in the nose, due to the dilatation of the blood vessels, and the presence of a large quantity of blood, thickening and heating the membrane. The production of mucus is stimulated by this extra blood-supply, and the accelerated production after a time results in a more liquid mucus which is less efficiently moved by ciliary activity, and ultimately overflows, at first backwards into the throat and then out of the front of the nose. This liquid mucus contains some of the by-products of the inflammatory process and when it reaches the throat a sensation of soreness is aroused. Its overflow out of the front of the nose produces the "running nose" characteristic of the

middle stages of a cold. If no secondary invasion by pus-forming bacteria (like streptococci or staphylococci) occurs, clear fluid continues to run from the nose for two or three days, gradually lessening and becoming thicker as the blood destroys the virus. When the need is past, the blood vessels gradually contract down to their original size. If a secondary infection occurs, the nasal discharge becomes yellow or green, because pus cells (used white corpuscles from the blood) are thrown off into it. The discharge may now continue for several days, or even weeks, until the body defences, perhaps assisted by medical treatment, destroy all the invading germs, after which normal conditions are gradually re-established. No one can help becoming aware of these changes.

Exposure to heat and cold, to dry or to humid atmospheric conditions, all cause reflex compensatory reaction in the nasal membrane. The average person is rarely conscious of them, but in certain people the membrane reaction may be unduly vigorous, resulting usually in obstruction, sometimes accompanied by discharge. If, in addition, the atmosphere is polluted by chemical or other fumes, or if the nasal membrane is excessively exposed to tobacco-smoke, these symptoms are sooner or later inevitable.

The two most common nasal symptoms are obstruction and discharge, and it has been explained that each or both can

be produced by vastly different causes. No one single method of treatment can therefore hope to deal successfully with these symptoms.

When they are due to an acute infection, the logical method is a direct attack on the infecting organisms with sulpha drugs or antibiotics, although, unfortunately, the common-cold viruses are so far without any specific antidote. The rational non-specific treatment is to assist Nature's efforts in bringing extra quantities of blood to the injured membrane, and heat is the method of choice, as it causes a dilatation of the smaller blood-vessels. The hot fomentation or poultice is a well-tried method of treating a superficial infection, and inhalations of steam, preferably medicated to have an agreeable odour and thus be more palatable, are an almost equally time-honoured and efficacious method of treating respiratory infections. Rest in bed and general measures to produce mild sweating and purgation are helpful, and will not only accelerate cure, but will also prevent the patient spreading his infection.

Nasal allergy is best treated by discovering the substance to which the membrane is allergic, and either preventing it from

coming into contact or desensitizing the patient against it with anti-histamines. If the nasal symptoms are due to atmospheric or other irritants, prevention is the rational remedy. The irritation of tobacco is by far the commonest cause in this group. Cigarette smoking is certainly a pretty severe irritant. When this is explained, the patient may be quite willing to accept his nasal symptoms in return for the pleasure he derives from the habit!

The last large group contains patients with no organic disease and who have imaginary symptoms, or who are given to the frequent use of so-called 'decongestants' i.e., something which will unblock a blocked airway. The frequent use of these is itself a chronic irritation, ultimately resulting in permanent scarring and in a disorganization of the membrane. The only logical use for a vaso-constrictor occurs when the ostium (opening) of an infected sinus is blocked, causing a damming out of the inflammatory products, and thus pain. It is then justifiable for a day or two to try and shrink the membrane surrounding this ostium and allow drainage, until the reparative actions of the body and general treatment reduce the turgidity of the membrane. —(*Health Horizon*, Spring, 1961).

Property

It is the fruit of labour. That some are rich shows that others may become rich. Let not him who is houseless pull down the house of another, but let him work diligently, build one for himself and live in safety.—
(*Abraham Lincoln*).

THE FACTS ABOUT CORTISONE

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CORTISONE belongs to the chemical family of steroids. It was the first of a most useful group of drugs that now include prednisone, prednisolone and a rapidly increasing number of others, closely related but not quite the same in their action.

They are used in almost every department of medicine for a wide variety of purposes. But they are not without danger. They should never be used if something else is equally effective. But if used carefully and properly they are immensely valuable.

Consider the wide variety of disorders for which they are prescribed by doctors. Certain kinds of rheumatism, asthma, allergy, glandular disorders, skin diseases, eye diseases, arthritis, colitis, blood diseases, kidney disease, gout, and so on.

The story of the steroids starts with the discovery by a Guy's Hospital physician, Thomas Addison, that destruction of the adrenal glands, which lie just above the kidneys, produced serious and often fatal symptoms. The disease he described is still known as Addison's disease. The adrenal glands are small and produce chemical substances that influence normal growth, genital development, and blood-pressure.

It was found that Addison's disease could be treated successfully with extracts of healthy adrenal glands, but such material was hard to obtain and very expensive. Was it possible to make the key substances in the laboratory? Obviously the first thing to do was to find out the chemical nature of the effective substance, a very difficult job. But the problem was solved in 1936 and within a year something closely related to it was produced. This substance desoxycortone was successful in treating Addison's disease, but it wasn't the complete answer.

Further experiments brought about the manufacture in the laboratory of better products. In 1946 cortisone was produced. Next year a team of American doctors, led by Dr. Philip Hench, was experimenting with the use of cortisone in other diseases. They found that when it was administered to cases of crippling rheumatoid arthritis the results were amazingly successful. Similar results were obtained in other conditions. But unfortunately the drug caused a number of unpleasant symptoms.

Many patients on cortisone and other steroids put on a great deal of weight. Fluid accumulates in the tissues and fat is deposited widely, particularly in the face, giving a moon-faced appearance. The blood pressure can rise dangerously. The heart can be affected. There can be mental changes varying from unwarranted optimism to equally unwarranted depression.

Caution needed.—Acne and hirsutism (undue hairiness) can be caused in women, and the

monthly periods can be suppressed. Yet in other cases of adrenal disorder, cortisone or the other steroids may banish unfeminine hairiness and restore the periods to normal. Steroids also have a bad effect on gastric ulcers, diabetes, tuberculosis and any infective process. They also lower the ability to combat shock or resist operations or severe illness.

This is a formidable list, but I repeat that when other methods of treatment have failed steroids, properly and carefully administered, are immensely useful.

Steroids are of great value in severe cases of rheumatoid arthritis when aspirin cannot be tolerated. In severe asthma when all else has failed, steroids can act like magic.

In the rare Addison's disease, cortisone successfully replaces the hormones produced by the diseased gland, but in this case it must be continued indefinitely. Moreover it is now possible to remove the vital adrenal glands surgically as a method of dealing with cancer. Before we had cortisone, such an operation would have meant death.

In the rare but serious group of what are called 'collagen diseases,' steroids save the life of the patient. They are also very useful in one type of kidney inflammation.

Up to now we have been discussing diseases in which steroids are conveniently administered in tablets by mouth or occasionally by injection. They are of great value and less liable to produce unpleasant side-effects if they can be used at the actual

site of a disease. A special steroid ointment is often helpful in cases of eczema and dermatitis. Steroid ointments and eye drops are also very beneficial in a number of inflammatory diseases of the eyelids and eyes, including conjunctivitis and iritis, but the treatment usually has to be maintained.

The injection of steroid preparations into joints often relieves the pain of rheumatoid arthritis, gout, tennis elbow and sprains. Cortisone snuff helps hay-fever victims.

Treatment can easily be carried out by your own doctor, but in some cases he asks for the guidance of a specialist about the correct dosage to be employed in a particular case. And he usually seeks specialist guidance if he feels that steroid treatment should be carried on as a permanency, except, of course, in cases of adrenal disease when steroid treatment must be continued for life. A careful watch has to be kept on increasing weight, the risk of dropsy, and increasing blood-pressure. Sometimes the newer steroids such as prednisone have fewer ill-effects and a change from cortisone to one of them may be beneficial.

Steroids cure nothing, but they bring much relief while efforts are made to cure the disorder in other ways. They have saved many lives, but they must be taken exactly in accordance with the doctor's instructions. And it is equally important to have a regular check-up by your doctor. It is even more important, if an operation is advised,

to tell the surgeon if you are on steroid treatment or have been on steroid treatment during the past six months. He can then take steps to counter any extra risk.

It is a pity that such useful

drugs must be used with so much care. Perhaps, who knows, a new form will be produced one day that is equally successful in relieving symptoms, but less harmful in other ways.—(*Family Doctor*, March, 1961).

MAKE FRIENDS With Your DUODENAL ULCER

ROBERT KEMP, M.D., M.R.C.P., London

ONE of the simplest points to grasp in the correct management of your duodenal ulcer is a regular timetable for meals. The ulcer itself isn't troublesome all the time, but makes itself felt with almost clockwork regularity at certain times of the day, mid-morning, mid-afternoon, late evening and in the early hours of the morning. Sometimes it makes its presence felt before meals and two hours after meals.

Never let your stomach lie empty for too long. Because of the over-activity of the glands forming digestive juices in people with a duodenal ulcer, there is a surplus of acid and pepsin when the stomach is empty and lacks food to use up and to neutralize these digestive juices. You must mop up this useless acid by food.

You must remember that what your stomach does is outside your conscious control. It can only control its actions in the light of the meals which it receives. For this reason regular meals, little and often, has long been the motto for the ulcer patient. Food is, in practice, the best way of losing ulcer

pains. Most patients will have found the milk and biscuits remedy at an early stage.

A duodenal ulcer makes certain basic demands that should be met. The hard part is to get patients to subject themselves to the mild discipline of building regularity into their life. The man with a job and a fixed routine and regular hours scores. Under most working conditions, however, it can be arranged to have a little to eat every few hours. Most people actually have three main meals and three snacks each day. To this could be added some milk and biscuits on the bedside table for night hunger. A programme I would suggest is on the following lines:

Breakfast:—On rising your stomach is at the lowest ebb of its activity; so start it off with great consideration. This includes getting up early enough to eat a leisurely breakfast without any agonizing rush to get to work. You must have a reasonable meal which will keep the stomach occupied for some hours. Then between ten and eleven have a milky drink and a snack. You should then have your midday meal at the same

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time every day, and if possible at home, or in a canteen or cafe which can be trusted to serve a well-cooked, light meal. It's best to take an hour for meals, then a nap, a rest, a walk, a game or something which will ease the work tension out of your stomach. Take another snack between three or four, designed if necessary to carry you on through the journey home and any other delays to the next meal.

The evening meal should be the main meal of the day, but even so it should not be too solid and shouldn't be followed by a period of lounging in an armchair. Don't stimulate your stomach by any cocktails or *aperitifs*. Some people might benefit more from a short nap before their meal, rather than after.

Supper:—This should be a small meal rather than a snack, with the idea of preventing your being wakened up by any hunger pains at any time after midnight.

This kind of programme sounds simple enough on paper, but many find it difficult to fit into their work schedule. Most of the snags can be got over when there is determination to get things right.

You should never go far too long without food. This may merely mean carrying a reserve bar of chocolate or a packet of biscuits. For others it may mean starting out with a well-filled case containing bottles of milk or flasks of weak tea, and enough suitable food for several snacks.

You must never miss your meal time, or delay it and then eat a large meal. That always means trouble.

Regularity of meals emphasize the importance of a stable home background for a man with a duodenal ulcer. If he has a good home, his wife will see that he doesn't miss his meals, but there are problems for a man who has a poor or broken home or is in lodgings, or whose job takes him away from home for part of the time.

Those who have jobs which make regularity quite impossible must face the serious decision of finding another job. The question of shift work and night work is often raised. Again it is a question of whether a proper timetable can be worked out and kept. Some few patients can manage this, but on the whole regular fixed hours have much to recommend them, even though the pay may be lower.

Don't take your tensions and worries to the meal table, and avoid acrimonious discussions during it. A well-served meal also helps, as do a set of teeth or dentures which can really chew the food properly before it is swallowed. Eat slowly and rest a while afterwards. A glass or two of water would help to dilute any excess acid and help digestion.

To most patients what to eat appears to be the most important problem, but it is really only one of the factors that need to be considered. As you know there are times when it seems possible to eat anything at all

without provoking indigestion, and it isn't always an indiscreet meal that starts off a bout of trouble.

If you have no symptoms it doesn't mean that your ulcer is healed but rather that you have found the right answer and must continue on the same lines. If you are to be cautious all the time, then obviously the programme must not be rigid and strict but as easy and as attractive as possible. The idea of trying to cure or control a duodenal ulcer by a dull monotonous diet is out of date and dangerous. The ulcer patient must look and feel well-fed and happy.

The choice of foods is, of course, quite simply based on the fact that some foods call for a much greater flow of acid and pepsin than do others. A bland food like bread and milk would make very little demand for gastric juice and would easily buffer and absorb what was manufactured.

Greasy foods, spices, condiments, pastry and fruits not only give rise to a big flow of juice but they cannot buffer it when it is produced, since it is not actually needed for their digestion. Perhaps the *most indigestible thing* known to ulcer sufferers is *underdone fried onion*. In contrast well-boiled onions with butter are found to be quite digestible. Some foods must always be black-listed, *e.g.*, beef, mutton, pork and goose, heavy puddings, pastries and fresh bread. Acid unripe fruits and

pickles and spices; fried, rich, or greasy foods, some cheeses, alcohol, coffee and meat extract drinks.

All vegetables are suitable, except perhaps potatoes. Milk and milk products such as butter, cream and bland cheese, olive oil and margarine. Eggs and all egg dishes. Fruit when thoroughly ripe, and most salads. Canned fruit and dried fruits are quite digestible. All kinds of bread except fresh bread, cereals, biscuits, dried beans and peas, rice, oat-meal, macaroni and so on.

It is as well to sound a warning, however, that while encouraging you to eat well and almost freely, the pattern of food suggested is a rather fattening one containing a lot of sugary and starchy things. You must watch your weight carefully and if gaining too much, give up sweets and sugar, limit the amount of bread severely and cut down as far as possible on the milk. Fat patients are very difficult to reduce and one mustn't exchange one disability for another.

Two general rules about what to eat: *First*, you must know a short list of foods which *don't suit* your stomach. *Secondly*, you must have a very wide variety and choice of the large number of things that *will be easily digested*. You must on no account restrict yourself to a diet that will be harmful physically and psychologically.—(*Family Doctor*, December, 1960).

Medieval Famines and 20th-Century Heart-Disease

DR. E. J. MOYNAHAN of Guy's Hospital, London, says: "When preparing a lecture recently I was struck by the number and severity of the famines in the Middle Ages, especially in the first half of the 14th century.

These followed a secular change in the weather which had begun in the middle of the last decade of the previous century and lasted until the mid-forties of the 14th century. The climatic changes led to a series of crop failures and poor harvests, often in successive years. Contemporary accounts tell us of cannibalism in isolated villages, where parents consumed their dead children; and Holinshed (*Holinshed, R., Chronicles of England, Scotland, and Ireland*, London, 1578) informs us that newly incarcerated prisoners were torn to bits and eaten by their famished fellow gaol-inmates. The Black Death struck towards the end of this period, adding to the misery of the population, and to make matters worse, at least so far as Western Europe was concerned, the Hundred Years War began, bringing more disease, misery, and famine in its train. These disasters had reduced the population of England by at least a third by the end of the century; but the material and human losses suffered by France by the time the struggle between the two countries ended

were even greater and equalled those in World War II.

Famine seems to have been an everpresent hazard to most human communities, in pre-historic and historic times almost till the present century. The great famine after the potato blight just over a century ago in Ireland reminds us how near in time we are, even in these islands, to this important demographic hazard. Although actual famine did not feature in the Industrial Revolution, inadequate nutrition was quite common, as is evidenced by the small stature and delayed puberty of most of the town-dwellers of these islands during the last 150 years or so: a situation which has been remedied as a result of the two world wars, so that the population is now adequately fed with good-quality protein and vitamins, but may well be over-supplied with calories.

Those members of a population who can store up food for times of scarcity may well be at an advantage for survival from the genetic point of view; and fat is the most convenient depot. Most adults in the more advanced countries have a two months' reserve of fat, while the obese may have sufficient to survive for eight or more months on very short rations. Without going into details of the number and mode of action of these genes, let us call them the "food-storing" genes. Famine will tend to spare those with such genes; but when food is plentiful, especially if permanently so, then these genes no longer confer biological advantages, and may

even be disadvantageous. If this is so, we may well be paying the price for the survival of our ancestors during the many centuries when famine prevailed; and we should expect this price to be exacted first in those populations producing surplus food and consuming excess calories. These conditions were fulfilled for the first time on a large scale in this century in the United States, and have now become a feature of the diet of the more advanced countries, coincident with increased coronary disease.

Fasting and the consumption of fish in medieval times may well have considerable bearing on the present-day problem of coronary disease, if the fats consumed in the diet are really concerned in its aetiology. Neither should we forget that there was no compulsion "to keep up with the Joneses" in a society which had a fixed place for virtually every individual, ordained by a divine providence; and this possibly benefited his cardiovascular system.

Famine still hangs as a threat over the heads of millions of Asia, Africa, and South America; and it has been a selective factor in human populations since the earliest palaeolithic hunter pursued his quarry on the fringes of the retreating icecaps. May not the steatopygia of the Hottentot Venus figurines represent the desire for a very necessary food-storing capability rather than a fertility symbol? If the increase in world population is not halted it may threaten us all, with results which future historians will no doubt find interesting and puzzling.

Careful studies of the dietary habits of peoples in the past throw considerable light on some contemporary problems and serve as a useful check on the more exuberant hypotheses of the aetiology of modern maladies. Genetics can sometimes help the historian; if we took more interest in the history of medicine, we could help the geneticists, and thereby help ourselves.—(*The Lancet*, 25-3-'61).

Car Thieves

As part of a study of 200 Borstal lads carried out by Dr. T. C. N. Gibbens, and referred to in the recently published annual report of the Institute of Psychiatry of the University of London for August 1959 to July 1960, a special study was made of the 39 car thieves in the group. This showed that, although they mostly came from the over-crowded delinquent areas of London, their homes were often 'intact, affectionate and over-protective.' They were mostly the later members of large families and many of them had reached Borstal after several convictions for which they were not sent away—probably because they seemed to have 'good' homes and to be hopeful cases for probation. They more often showed neurotic symptoms than the rest of the delinquents studied, and their offences were often carried out to give them a feeling of power, or to show their masculinity and independence.

Narration The Therapeutic Glance (In Lighter Vein)

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THIS era of irascibility, darkened by the clouds of suspicion and strife, is brightened by a polestar of credulity. This is the cherished belief that all any good doctor needs to do is to look at a patient and all will be Right as Rain. Public opinion on the efficacy of the Therapeutic Glance is widely prevalent. It even exists in areas committed to honey and vinegar, blackstrap molasses, and other ingenious remedial measures.

Just about everybody has heard of miracles by the Therapeutic Glance. It sounds something like this: "All that wonderful Doctor needed was to take one look and I was cured!" The duration and intensity of the "look" is not specified; the condition is not revealed; and there is a significant lack of follow-up studies. Every clinician has been, and will be, solicited to administer the Therapeutic Glance. The literature is singularly lacking in references.

Remember how unnerved you were the first time you were solicited to bestow the Therapeutic Glance? You welcomed the new patient into your office. Your attempt to get a history prior to an examination brings: "Why all this? All Doc Former needed was a look." Another subject not deemed important by the professors!

It is easy to assume that oculists would have knowledge on this topic. And so, once upon a time, it was broached to one. He took a dim view, a very dim view, to the assertion that emanations from the orbit possessed therapeutic effectiveness. He called it "bosh." Being reminded of the magnificent antiquity of the Evil Eye resulted in the label of "double-bosh." This, in his opinion, was not a mechanism of power. Obviously this was a personal communication.

As we know, patients clamour for the Therapeutic Glance. Only a few of many typical examples are given. Take the Busy Man. He sounds like this over the telephone: "Hyah Doc. Have something you must see. Be there in ten minutes." He hangs up on the sibilant. The doctor is completely confident (a) he is not bringing a rug for the worn spots, (b) or a clutch of new magazines, (c) or choice tickets, (d) or a bottle of the oldest and still the best tranquillizing agent.

The prognostic acumen of the doctor is accurate. The very busy man made a slight misstatement. He said he wanted the doctor to look. Someone's ear is bent. It will only take a second to give the doctor a few preliminary facts, and so the recital begins. First, there is a five-minute recitative about his Aunt Sarah's interesting parallel symptoms and course. "Being a Doctor, you should be interested." And if Doctor doesn't grip his chair with tension at this exciting recital, he is showing apathy. Should Doctor close his eyes in an effort to recharge the batteries for the

Therapeutic Glance, his motive is mistaken.

Finally, after twenty minutes, this very busy man (VBM) finishes itemizing his appalling family history of susceptibility to cancer and exhibits the lesion. It had not been visible to the doctor at six paces. In the north light of a lovely summer day, and by concentrating, it becomes focused by the bifocals. The doctor rubs it and erases it. The VBM reels out of the office in ecstasy. Another advance man is born and is eager to tell of the benefits of the Therapeutic Glance.

Our VBM forced himself into Doctor's heavy office schedule. From the moment a scared man entered and a happy fellow reeled out was twenty minutes. The action time of looking was a couple of seconds, with the rub thrown in. The listening done by Doctor was educational and freely given. And yet some money-hungry doctors charge patients for this service! No wonder our profession and country have troubles.

T.G.—A magic wand?—That long-suffering angel who is your Office Lady is badgered, wheedled, and cajoled by those eager for the succour of your T.G. It takes her about six months to acquire a hard-nosed attitude. Over the telephone she listens to this wail: "Oh, if only you'll let Doctor take a look! I know he is so very busy and I wouldn't think of disturbing him for anything trivial. If you could just

squeeze me in for a *second*, I promise to sneak right out. I read something in the paper this morning that describes my case *exactly*. When I was with Doctor last week he looked tired, poor dear. He works too hard and worries too much. I do wish he would take on an assistant to help. Then Doctor would have more time for his friends, don't you agree? Be nice to me and tell me when to be there. I'm willing to cancel my hairdresser so that he can take a look."

People with a fixed opinion concerning the T.G. have another trait. The vast array of instruments, tests, and procedures are window-dressing when they aren't schemes to pad the bill. Gadgets make Doc feel important and justify wearing a white coat and an air of professional demeanour. For everybody knows that all any good doctor needs is a look. And so, there is the patient that insists upon a complete, a *really* complete examination. He is admitted to the hospital and given everything but contamination. At the end of a week of peering, probing, needles, and enemas, he is given a good report. Doctor is pleased to advise a little less smoking, alcohol, and fattening foods. He sends his statement with the feeling of a job well done. It comes back with a stamp request for itemization. A few words are added: "Isn't this a bit steep? After all, you only looked me over."—(J.A.M.A., 18-3-'61).

Are You Colour-Blind?

Here are some simple experiments for testing your own colour vision

LESLIE WELLS

THE great chemist Dalton, who had all the quiet tastes of the Quaker, once surprised his mother by giving her a pair of scarlet stockings for her sixtieth birthday! He was under the impression that they were grey!

Colour-blindness is on the increase. The number of colour-blind men has risen to 12 per cent. Four out of every hundred men in Britain cannot distinguish between red and green. Women are less prone to colour-blindness, only one woman in every 200 being unable to decide which is which.

Inability to make the distinction between red and green is the most dangerous form of colour-blindness. It is a hereditary defect, handed down from grandfather to grandson, and the daughter of a colour-blind man, though perfectly sighted herself, can transmit the deficiency to her sons.

How can you make sure that you are not colour-blind! Simply by applying to yourself what is known as the *Holmgren Wool Test*. It is very simple, and calls for nothing more than some pieces of differently coloured wool and the presence of a friend who is not colour-blind.

The different colours of wool required are light and dark green, fawn, orange, yellow, a variety of browns, blue, blue-green, purple, violet, and light and dark red. Your friend holds

up to a green piece of wool and asks you to match it.

You are required to pick out all the shades of green which are piled in a heap on the table.

If you have normal vision, you will make the selections unerringly, but if you are colour-blind the green will be "matched" with greys, browns, and other drab colours.

Your next test is to match a piece of rose pink wool with the pieces on the table. If you have failed the previous test you will confuse this with wools that are blue, blue-green, grey, and violet.

Finally, you are required to match a piece of bright red wool with other pieces of a similar shade. You might respond by selecting dark greens, olive greens, browns, and perhaps a dark grey. In this case, you are very definitely colour-blind and will be quite unable to distinguish between red and green traffic-lights.

Normally sighted persons who witness these tests on a colour-blind person find them really startling!

Another simple test is called the *Ishihara*, and for this you need a series of cards on which are printed many coloured dots of varying hues. Among them is a figure of 2, 3 or more digits in a primary colour. A perfectly sighted person can see the figure plainly, but for the colour-blind the numerals are partly concealed in the dots and only part of them can be distinguished.

Because of this, the colour-blind person will announce that a figure 6 is a 5, that an 8 is a 3.

and that a 4 is a 7. The numeral is merged in colours which he cannot distinguish.

It may seem surprising that many people go through life quite unaware that they cannot differentiate between colours. The reason for this is simple. During childhood they learn that grass is green, that the sky is blue, and that tomatoes are red. Knowing that certain things have certain colours, when they think of these things they assume the colour although they cannot see it. And they learn to distinguish between green, blue, and red more by the intensity of the shade than by the colour itself.

Although colour-blindness is hereditary, it can be intensified. Some people find that, in later life, their colour-sense begins to decline.

This is particularly true with those people who smoke a pipe, chew tobacco, take snuff, or work in a tobacco factory. If they stop doing these things they find that, in as little as a week, there is a marked improvement in their powers to distinguish colours.

It is remarkable that in such trades as textiles, drapery, and printing, pottery and paint manufacture, where perfect sight is vital, there is no regular test for colour-blindness for those who seek work in them. It is even more remarkable that there is no such test for children at school.

The danger of colour-blind men being employed on the railways is obvious. But all

people use the roads, and the ability to distinguish between red and green is important to safety. Among the four million motorists in Great Britain there are some 150,000 who cannot distinguish between a *STOP* and a *GO* signal except by its position on the post or by reading the words on the lights.

The words, however, are only readable at a short distance. This means that these drivers are much more of a *menace* than the normally-sighted drivers. They are unable to see 'red.'

Happily, bulls cannot see red, either. They do not attack because a person is wearing a scarlet garment and they don't like the colour. Bulls, like cows, cats, horses, dogs, and sheep, are colour-blind. On the other hand, monkeys and apes can distinguish colours, and birds see all colours vividly except *violet*.

Flies, too, can detect colour and are highly *allergic to blue*. Thus a room decorated in blue is almost certain to be free of flies.

Until recently scientists were baffled by our ability to distinguish the 160 different colours that are presented to the eye. They were also completely mystified by colour-blindness. Now, however, they know that colour is distinguished by the thousands of tiny rods and cones which make up the *retina* of the eye. These rods and cones sometimes lack elasticity and thus fail to stretch in response to different colour waves.

There is also a substance

which is known as *visual purple*. This is supplied to the eye very quickly when exposed to the light, but it is also consumed very rapidly. People who are the victims of colour-blindness do not enjoy a quick replenishment of visual purple.

Is there a cure for colour-blindness? Happily, there is in some cases. This is especially the case when the aberration is only very slight.

Recent tests have revealed that lack of vitamins A, B, or C can impair colour sight. Cod-liver oil and foods containing a high proportion of vitamin A are considered most beneficial for improving colour sense. If these are taken in sufficient quantities during adolescence, the results can be remarkable and they are nearly always excellent.—(*World Science Review*, London).

PLASTIC BAGS

RECENTLY, in both the national and the medical press, a number of deaths have been reported which have been due to asphyxia arising from respiratory occlusion by plastic bags which have been pulled over the head. This represents a new hazard of twentieth century civilization and one which is likely to take an increasing toll unless measures are taken to alert the public to the danger and to diminish the risk of such occurrences.

It is unlikely that the use of such an admirably practical device as the plastic bag will be discontinued, but it is possible that the temptation—at least to children—to pull the bag over the head might be reduced if the bag were rendered opaque. Much of the attractiveness of such temptation must lie in the fact

that the bag is translucent, and if it were possible to render it opaque by colouring it with a solid colour one might hope that much of this temptation would disappear. It should be a relatively simple matter for the manufacturers to achieve this end—nor need the attractiveness of the article necessarily suffer in the process.

Further, perhaps a warning could be lettered on the bag in contrasting colour—for example, "it is dangerous to stick your head in this bag"—there must be a better slogan. This would serve to caution literate children and to alert parents who were responsible for infants. Possibly the depressives, the psychopaths, and even the transvestites would be deterred by such a simple measure.—(*B.M.J.*, 25-3-1961).

Justice and Mercy

There is something awe-inspiring in the bleak austerity of the idea of Justice, exact, severe, inexorable, like Fate itself. Therefore, as equity was introduced to modify the harshness of law, so Mercy has been born in the human heart to temper and mitigate the unyielding quality of justice.—(*Du Cann*).

MAHATMA GANDHI AND NATURE CURE

THE article by Mr. Joshi about his recovery to health via Nature Cure because of Gandhi (*Health For All*, March, 1961) reminds me of the story of Gandhi's treatment of his ten-year-old son, Manilal, who was dangerously ill with a high fever, caused by pneumonia following typhoid. This was related by John Gunther, the author of *Inside Asia*, and his telling not only reveals how close to natural methods Gandhi used, but also the author's extraordinary misunderstanding of what was happening.

Gandhi's doctor said that eggs and chicken broth might save the boy, but Gandhi refused. His treatment was to give orange juice and hip-baths. The boy's temperature reached 104°, and his life hung by a thread. A wet-sheet pack was then applied and a wet towel round his head. Then Gandhi, distraught with anxiety, went for a walk, haunted by the possibility that he

had done the wrong thing. When he returned, Manilal was perspiring profusely and the temperature was at last going down. Gandhi undid the pack, dried the boy's body, and "father and son fell asleep in the same bed."

It is fantastic to think that Gunther, instead of realizing the logic of the wet-sheet pack and the orange juice diet as being the only way to save the patient, actually blamed Gandhi for "being brutal for a principle," and further stating that Gandhi's honour and faith were more important to him than the life of his son. Even when Gandhi's wife, Kasturbai, later had the same crisis, and Gandhi (after consulting with her) adopted the same methods, Gunther saw only the stupid defiance of the doctors and would not admit for a moment that, after all, the natural methods *had* succeeded. The fact that each time the doctors said the patient would die unless nourishing food was administered, and each time the patient recovered via an eliminating fast, was glossed over.—(Hugh McCleery of Bromley, Kent, in *Health For All*, April 1961).

SOS from the Heart

Before a person has a heart attack the heart sends out a cry for help which cannot be heard by the doctor's stethoscope, say specialists at the Hahnemann Medical College, Philadelphia. For this reason they are carrying out on 500 patients, tests with electronic microphones designed to detect subsonic sounds. In this way, the research team reports, it has been possible to pick up sounds inaudible to the human ear. The team hopes to detect warnings in apparently healthy people who may have hidden or incipient heart troubles.—(*Tit-Bits*, London).

Justice is the only goddess subject to miscarriage. Yes: it must be because of her frequent "miscarriages" that justice is personified as female!

Tonics and Appetizers

In California, real estate salesmen know no bounds to their exaggeration when selling. This particular salesman was showing a particular property to a prospective buyer.

"The climate here is the best in the country, no one ever dies here," he said.

Just then a funeral procession came into view. For one moment, the real estate salesman was silent but then he said, "Poor old undertaker. Starved to death!"

Two gentlemen had been out on the town drinking heavily. The morning after-ward one of them woke up in a hospital. He asked his friend standing near him, "What happened?"

"Well," was the answer, "last night when we got back to the hotel room, you walked over to the window and said you were going to fly around the block."

"Why didn't you stop me?"

"To tell you the truth," his friend said, "last night I thought you could do it."

He lived to a hundred and one,
Sanguine and strong.
A hundred to one you do not
Last so long.

Hurry and Worry

We say that life is far too short
To waste our time at foolish play,
Or sit and sun at some resort
And quietly pass the time of day.
And so we rush and hurry on
As if tomorrow will never come,
Unless we act like an automaton
Whose spring is wound to the maximum.

And then as if it's not enough
To hurry on and on each day,
We try to make our life more rough
And worry half our life away.
Oh yes, our speed is really great,
And worry makes us think and act:
But speed is for a plane with freight,
And worry comes with a death contract.—(A. P. Seltzer).

The Quick Retort

A young lady was stranded in a mid-western town one night and asked the man at the station where she could find a hotel.

"There aren't any hotels here," he told her, "but you can sleep with the station agent."

The answer was, "I'll have you know that I am a lady."

The man replied, "That's all right. So is the station agent."

A well-known doctor was strolling down the street with his wife when a young and beautiful blonde said hello to him. His wife looked at him suspiciously.

"Who did you meet her?" she asked.

"Just a young woman I met professionally," he explained.

"I see?" his wife said, "yours, or hers?"

The safest way to be cheated is to think oneself cleverer than other people.

Forty is the old age of youth, fifty is the youth of old age.

Happiness is like jam, you can't spread even a little without getting some on your self.

The two great tragedies of life are not getting what you want and getting it.

A man met a friend of his on the street one morning and said, "Say, Sam, have you seen Melvin lately? I have been looking high and low for him."

"Well," said his friend, "those are the places to look. He died in January."

A businessman decided to put one of his employees to the test. "I have a question for you," he said, "how many pancakes can you eat on an empty stomach?"

His employee said, "about six."

"Wrong," said the businessman, "you eat only one on an empty stomach. After that one, the stomach is no longer empty."

One of New York's most successful PR men, when asked what he did for a living, said: "I spend my time building great big pedestals for tiny little men." (All from *J.A.M.A.*, 14-4-1961).

Amen!

When Andrew Carnegie the millionaire, once visited a small church in Georgia he dropped into the collection plate a \$50 bank note. The old man passing the plate was startled and took the plate to the minister, pointing out the note. The minister expressed amazement and examined the note on both sides. Shaking his head, he proceeded to count the change in the plate.

"Friends, the Lord has been mighty good to us today," he told the congregation. "The collection amounts to \$6.60, and if the bill that the gentleman with the gray hair and beard has given us is good, we have \$56.60. Let us give thanks, put our trust in the Lord, and pray that it may be a good bill!"—(*J.A.M.A.*, 15-4-'61).