

1923

HEALTH

FOUNDED BY THE LATE DR. U. RAMA RAU

A JOURNAL DEVOTED TO HEALTHFUL LIVING

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World News of Topical Interest

Time and Heat Control

A new switch for use with electric heaters gives both time and thermostatic control. The dial can be set to any time when the heater is desired to come into operation. It can also be set to maintain a specific temperature by the thermostat control, and this can be used independently of the time-setting.

It is important to point out that time-switches that turn on heaters when a house is unoccupied can be dangerous *unless* it is ensured that nothing inflammable is near the electric heater. This new switch is made for 13 or 15 amp. service, and called the Timostat.

Cashing in on Brainwaves

Have you a first-class idea, something absolutely new, which could be of commercial value if properly developed? If so, you should get in touch with Ideas Marketing Pool, 6 Old Bond Street, London, W.1.

This organization, headed by businessman John Connell, has been formed to help the ordinary inventor, without capital or influence, to get a proper reward for his brain-children.

"Hundreds of people," says Mr. Connell, "have sudden inspirations and bright, even brilliant ideas. Usually, these leap to mind while they are relaxed, sitting at home. But because of the difficulty of knowing where and how to place them, only a few ever go further with their ideas. Now we intend to fill this gap, and tap, I believe, an immense reservoir of inventive skills."

Those with a first-class idea, discovery, invention or formula can register it with the society on a special form for a fee of 5s. The society then undertakes to bring the idea to the notice of a firm or firms capable of exploiting it.

Prospective users undertake to remit 10% of their net earnings from the idea over a three-year period and 75% of this money is paid to the originator.

"We reserve the right to refuse to register ideas that are contrary to the national interest or of a frivolous, obscene, offensive character or in any other way unacceptable and undesirable," says Mr. Connell.

Already several hundred ideas, some of great potential value, have poured into the Pool. Doctors, dentists, engineers, accountants, as well as manual workers, are all anxious, it seems, that their brain babies should be brought to life.—(*Tit Bits*, 14-5-'60).

Pensions for Cricketers?

Tony Lock, Surrey's left handed spin-bowling terror, is to receive a benefit this summer after eleven years' faithful service. He has been awarded the popular match against Yorkshire at the Oval on June 18th—21st.

During that time he has taken 1,292 wickets for Surrey at an average of 16·71. He has also taken plenty for England. But Tony is just as proud of his batsmanship and is regarded by many as the best night-watchman in the business. His highest score for his country is 66.—(*Tit Bits*, London, 14.5.60).

His Teeth are "Cat's Whiskers"

Do you grind your teeth at night? An American Air Force dental expert, Dr. Allen Brewer, has discovered that a person who actually chews for only ten minutes a day during his waking hours may grind his teeth for as long as four hours while sleeping.

He discovered this by installing tiny radio transmitters in artificial teeth in an effort to find out why they wear out. The tiny sets sent out signals whenever the wearer chewed or brought teeth together.

Amplified and recorded on a counting device, the radio signals reveal not only how often a patient chews, but also how hard he chews and how his teeth come together.

"This information may teach us why one man's teeth are worn down at thirty-nine, and another's last twice as long," said Dr. Brewer.

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By

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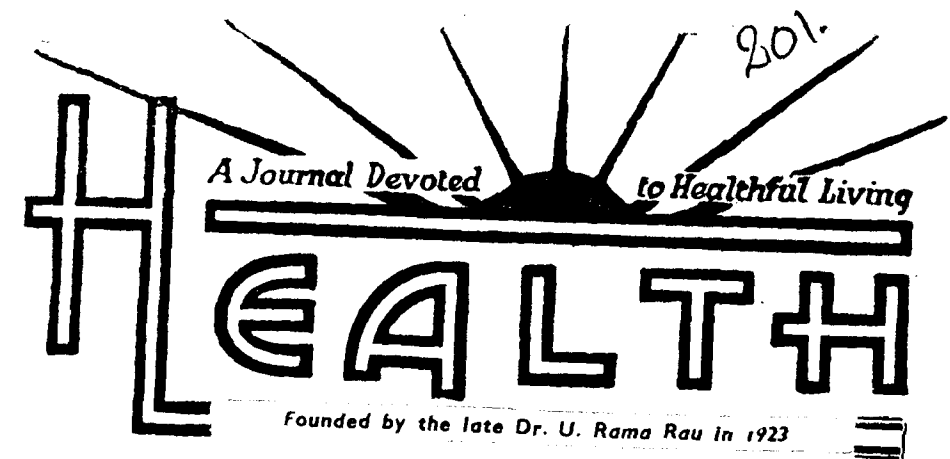
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EDUCATION AND REHABILITATION OF THE BLIND

THE problem of educating and helping the visually handicapped is beset with great difficulties. It is roughly estimated that in Madras State alone there are 1.5 lakhs of blind people, nearly two thirds of whom, will belong to the older age-group, not totally senile, but not fit for being given any vocational training. These must necessarily therefore, receive care in asylums. Of the remaining 50,000 blind, about 3,500 will be of school-going age, according to recent estimates. There are only 4 recognized institutions for imparting academic education to the blind in this State, viz., those at Poonamallee (near Madras), Teynampet (in Madras City), Salem and Palayamcottah. The schools at Poonamallee and Salem are Government institutions, while the other two are run by Christian missionaries.

The Poonamallee school has amply demonstrated that the blind can be trained in much the same way as other children. Children of the age-group, 5 to 15 are imparted education in the high school classes if they are found to have the aptitude for it. Otherwise, they are given craft-training—either rattan work or handloom weaving. The school has a strength of 200 pupils and in recent years has been regularly sending a few candidates for the S.S.L.C. Public Examination. So far, ten pupils have passed the S.S.L.C. Examination from this school and this year four students appeared for the examination, with the help of scribes authorized by the authorities.

The syllabus and text books are the same as prescribed for other schools. The only difference is that the text books are

the night. Some people find a piece of chocolate, a sweet, or even a biscuit is a help. Late meals, coffee, and tea must be avoided.

Some foods disturb rest, which may be a question of idiosyncrasy. Constipation, an irritable bladder, a cough, or flatulent dyspepsia must be corrected. Pain, of course, should be relieved by appropriate treatment, but in some conditions of long standing, such as sciatica, sedatives should be used as sparingly as possible.

Music, reading, a game of cards, or interesting conversation will prepare the mind to relax, and with it the body. Many people read in bed.

One should cultivate the habit of leaving the day's problems behind when entering the bedroom.

A simple device which may succeed is fixing the eyes on some point in the room until they are tired and close. Many people have found it useful to take ten or a dozen deep breaths.

Physiologists say that fatigue favours sleep, but a condition of over-tiredness makes for wakefulness. It is advised sometimes that a sedative should be taken after a long motor drive, or similar tiring effort, to keep the sleep habit in being, but this should not be necessary and may lead to abuse.

When physically overtired from exertion such as mountaineering, or other activity when out of training, wakefulness is

a common experience; or of course dreams of the nightmare variety are likely.

How many hours?—Infants require eighteen to twenty hours' sleep. At two years, twelve to fourteen hours are needed; from six to ten years about ten hours, and from eleven to sixty, nine hours. After this age six to eight hours are required. Some individuals, however, lead an active life with only four or five hours' sleep.

To be in bed resting for seven or eight hours, even though not actually asleep during part of the time, is quite healthy.

"Early to bed" is the best habit. It is an old saying that one hour before midnight is more valuable than any two later. To pass the usual bedtime may bring wakefulness with clear brain, sometimes adapted for study, but it is not a good habit for long.

"Early to rise" is valuable so that the day's work need not begin with a rush. Too much sleep is injurious.

If infants or small children do not sleep well there is some habit or disability to correct. Fear of the dark is common, but should not be difficult to check. School children and young adults usually sleep well. The cares of a family, with anxiety for others, may disturb parents, but it is for the elderly that medical advice is more commonly sought.

Old people must lie comfortably in bed and turn their minds towards old books they may be

re-reading, or to their childhood days. They should think how nice it is to be in bed compared with anyone who may be called out. A nap in an armchair in the afternoon, if not too long, promotes rest at night.

Sleep without drugs is natural, and is common to the majority of human beings. It should be a matter of course in the young: there are no events in adolescence or young adults which justify the use of a sedative drug by way of preparation.

To develop the right character with self-control, and if possible with a sense of humour, will make for restful nights.

As life's responsibilities increase, becoming less personal, with anxiety concerned with others, there may be tendency to less peaceful sleep, but drugs should be avoided. People should be discouraged from calling a little want of sleep by so high-sounding a name as insomnia.—(*The Practitioner*, London).

GIVE AND TAKE (FRANKLIN DWYER)

HAVE you noticed what a lot of people, especially young people, have a sort of chiding voice and manner? When they want something, or are seeking a favour of some sort, I suppose they feel a little embarrassed at the thought of asking. So they take the opposite course. They seem to reproach you for not doing what you had no idea, they wanted you to do.

Let me give an example. I took a photograph recently of an young girl—a friend of my daughter's. She wanted some extra copies. But instead of saying: "Would you be so kind as to give me an extra print or two of that excellent picture you took? I'd like to give copies to some friends," she approached me with the words: "Why

don't you give me some more copies of that picture you took?" As though I had done wrong in not thinking of it myself. I am inclined to feel that girls who do this are well on the way to becoming scolds and naggers. Fortunately not everyone is like that. Some young people, and grown-ups, too, when they want something, adopt a wheedling manner. They are much more than polite. They begin to coax.

Of the two the gentler approach makes one feel that what is asked for, will bring great happiness to the recipient. After all, if one is asking for something, why not ask properly? One is not required by law to confer favours and kindnesses on others.—(*Tit Bits*, London).

Potential Eye Hazards

'Bits of drandruff set loose in brushing or combing the hair could cause some eye inflammations' says a British physician. And eye troubles might also stem from the cloud of dusty beard and dry skin particles sent up by blowing directly into electric shavers to clean them. Such dust might also be breathed into the lungs.—(*Today's Health*).

PHYSICAL FITNESS— Our Primary Objective

By CARL E. WILLGOOSE,
Professor of Health & Physical Education,
Temple University

*To make your heart and
nerve and sinew
To serve your time long
after they are gone
And thus hold on when
there is nothing in you
Except the will which says
to you, "hold on!"*

—(Rudyard Kipling).

THE noblest thoughts in the minds of men are but wishful thinking in a body physically unable to put the thoughts in action. Kipling's "hold on" requires a physical wherewithal. Even charity, the ability to give of oneself without thought of return, is limited to the physical powers of the organism. The virtuous behaviour of mankind and the rewards of a rich and full life are tied as closely to man's physical capacity as the bark on the tree is tied to the tree itself. Physical strength to initiate something and muscular and cardio-respiratory endurance to carry it through are still the essentials, the *sine qua non*, of a civilization.

This physical wherewithal is an indispensable quality in man. With it he is able to strive and struggle through life seeking to achieve a certain happiness. This is accomplished "not by acquiescing with what is but by struggling for something else, not by accepting but by doing,

not by receiving but by giving, not by rest but by activity." Life by its very nature is activity. Any stable happiness, therefore, is related to the ability of the organism to be active.

To a health and physical educator the above words are "old stuff." Why, then, is there so much talk regarding the proper emphasis in physical education? Why, at numerous conferences, do rational men raise their voices and almost come to blows over the words "physical fitness?" Is it not true that to seek and maintain an optimum level of health is a primary aim of education. Is it not true that to seek sound organic development is a proper objective of physical education? Why, then, isn't it true that physical fitness is the primary objective of physical education?

In recent years considerable discussion has been given to the topic of fitness, total fitness, and physical fitness. One group of physical educators uses the terms fitness and total fitness in a general way where physical, mental, emotional, and social factors are considered together. Another group views fitness specifically and proclaims physical fitness as the primary objective in physical education. These terms need clarification; confusion has existed too long.

Certainly the whole man can profit from physical education in the area of emotional development, mental development, neuro-muscular skill development, and organic development. It is evident that all developments are bound into an inte-

grated whole, but "physical fitness" should be reserved for a quality of organic power. Physical fitness is optimum health. It is positive; it is unique; it is the quality of the person who is "in the pink."

The term "total fitness" is too vague. Nash says:—"A well-rounded individual should be high in all four levels of development. The well-rounded individual, when involving such popular terms as physical, mental, and moral fitness, even emotional and financial fitness, becomes a trite expression. Such broad terms as "total" or "well-rounded" can be applied to all education, to life itself; but as the whole is the sum of its parts, can we not discuss the relationship of parts? We must isolate *physical fitness* as the primary objective of physical education."

We know that health is only one phase of the total man, but it is a most important phase. Health teachers, social studies teachers, home economics teachers, school physicians, and physical educators all contribute to its advancement. But the physical education approach through large muscle activity is unique. Nash continues:

"The physical education, health, and recreation aspects of our schools have been criticized for attempting to be all things to all men. In view of the various contributions made by the schools, physical education and its associated areas cannot be *all things to all men*, but there are some things which they must be *to all men*...various phases of

education are assigned points of emphasis. One stresses history and literature; another, the sciences, another languages; another citizenship and still another, vocational training. All are, or should be, interested in the health and physical fitness of an individual; and physical education should be interested in and contribute to all educational objectives; but the physical educator's primary responsibility remains focused. Any one group of educators must select only a small portion of the total problem."

When physical fitness is considered as a primary objective, the school curricula in many towns and cities will take on a new look. Programmes will sharpen to develop and maintain muscular strength and muscular endurance, and there will be a corresponding increase in individual organic development. Physical educators will begin to work, as in days of old, with school physicians and school nurses in an effort to properly appraise health status and bring about significant pupil programme changes in the laboratory, playground, and gymnasium. Remedial or adapted physical education classes will grow in numbers, and the programme content will hold the interest of every child, for there will be something which is personal to him.

There are some who argue that by having physical fitness as the primary objective other objectives tend to be slighted. Nothing could be further from

the truth. One has only to study the many school systems here to see the close relationship between physical fitness activities and such other items as sport skills, the competency of athletic teams, the extent of the intramural programme, and the development of social efficiency and recreational competency. I know of no programme in which physical fitness is properly appraised and developed where other goals of physical education have been slighted. The opposite is the rule.

Physical education is a potentially powerful force in present-

day society. The need for physical exercise and physical recreation is tremendous. But the potential value will not be reached by merely working on social efficiency and the mental-emotional adjustment goals that all educators are interested in. Physical education will be most effective when it does the unique thing which it can do best. Certainly it must give attention to all present goals, but the objective of physical fitness must take precedence over the rest. In so doing we will have considered first things first.—(John Per, November 1959).

23-Year Snooze

Imagine for a few moments that you're a man (or a woman) of seventy. Then it will amaze you to learn that even if you're a comparatively quiet individual, you've spent no fewer than thirteen years talking, says a Swiss scientist.

If this fact hasn't left you speechless, ask him how many words the daily speech of a human being consists of and he'll tell you: "An average of 18,000 words, equivalent to a book of fifty-four pages."

So a seventy-year-old person has spoken as many words as are contained in 4,620 books of 300 pages each, declares this expert, after making elaborate calculations.

For good measure he also tells us that a seventy-year-old person, assuming he or she spends eight hours a day sleeping, has slept for twenty-three years.

We also spend a great deal of time in eating. A man of seventy spends six years of his life feeding and about one and a half years are spent in washing himself, assuming he washes regularly!

What about a seventy-year-old's work, entertainment and leisure hours? These involve a period of twenty years, says the scientist.—(Tit Bits, London, 28-5-1960).

Demoralizing Films Censored

American films are becoming increasingly loaded with rape, adultery, pre-marital relations, homosexuality, vice, violence, horror and even abortion among adolescents, the Theatres Branch of the Canadian Department of Travel and Publicity has declared in its annual report. The department's director, Mr. O. J. Silverthorne, said 'censorship of American film imports amounted to an all-time record during the last 12 months, because of the trend towards "dramatic treatment of the more sordid aspects of contemporary life."'

WHY LEAVES ARE GREEN

By O. A. BATTISTA, sc. D.,
Cambridge

HAVE you ever wondered why leaves are green? Have you ever asked yourself why grass, forests, fields and flowers are so profusely decorated with nature's most pleasing colour? Have you ever noticed how carefully the leaves on a tree or growing plant are spaced so that they do not cover one another?

Why do some flowers face the morning sun and follow it across the sky as it seems to make its daily rounds from east to west?

Inquisitive men have asked themselves these questions for many centuries, and the search which they started for the correct answers to them has led modern scientists to a better understanding of the most remarkable substance in nature, CHLOROPHYLL.

Chlorophyll is the green colouring matter of plants. It is involved in the important process of photosynthesis, whereby plants utilize light to decompose water and build up carbon dioxide into carbohydrates, which are useful as food.

It is a substance of such tremendous importance that every human being, every form of animal life and plant life, is directly dependent on it. Without a doubt, it is the key chemical of nature. For a very good reason, chlorophyll has been called the green blood of the world!

Chemically, chlorophyll is

closely related to hæmoglobin, the outstanding pigment of the animal kingdom and the chief component of human blood. But its function is opposite to that of hæmoglobin. Chlorophyll builds up sugars, whereas hæmoglobin carries the oxygen by means of which sugars are "burned up" within the body.

A still more important difference between chlorophyll and hæmoglobin is that the green pigment contains magnesium atoms, whereas hæmoglobin is built up around a network of iron atoms.

These magnesium atoms must be present in plants in extremely small amounts or chlorophyll loses its ability to manufacture sugars and starches. Truly, what a difference an atom can make!

The dramatic sequence of nature's manufacturing process begins each sunrise of our growing season. As the sun comes into sight on the horizon every leaf and grass blade pulses into action.

When you bask in the sun, you realize that most of its energy that falls on your body is dissipated as heat. But put a green leaf in the sun, and its chlorophyll absorbs the energy and holds some of it as chemical energy.

Take a leaf—take any leaf—and look at it closely. You will see that it has two sides, each of different texture. The lower side is usually pale, sometimes coated with a fuzzy material; the upper surface, on the other hand, is darker, sometimes appearing as though it had a thin film of wax over it.

As each tiny particle of solar energy (called a photon) collides with the chlorophyll pigment in the leaf, energy sets it aglow. With this energy the chlorophyll smashes open the molecules of the water (H_2O) and of the carbon dioxide (CO_2) which the leaf has taken in through its pores from the air.

Silently it proceeds to re-assemble these atoms of oxygen, carbon, and hydrogen into new patterns constituting sugars and starches, the basic foods in the leaf. Throughout the sunlit hours each leaf on every tree is doing this work.

At high noon, when the sunlight is intense, the corpuscle-like particles of chlorophyll pigment sink from the surface of the leaf, flee to the sides of the cells, or even turn on edge. But on a cloudy day they may do a half-roll and turn broadside to make the most of the light.

"A leaf," wrote the famous naturalist, Donald Culross Peattie, "breathes through the pores on its sheltered underside—so many and minute that they average about 100 to an area the size of the loop in the letter P in this line.

"On hot, dry days, lest the leaf wilt by water-loss through evaporation, its pores may almost close—but not completely or it would smother. When the pores open their widest, the leaf, and so the whole tree, breathes easier."

Through the magic of chlorophyll alone, green leaves possess the ability of capturing a small

fraction of the incessant energy from the sun, passing it on to man and beast.

One of the most important questions of the ages has been: "How does nature perform this miracle of chemistry through chlorophyll?" If man could find this secret, farmers of the future might be able to manufacture tailor-made foods in great quantities at very low costs, using nothing more than water, carbon-dioxide gas, and sunshine!

When scientists have this knowledge, they should revolutionize the world's food supply pattern. Almost any type of raw material could be turned into almost any type of food. Corn fodder, for example, could be reduced to basic elements and turned into cake; potato peelings could be made into ice cream. The elements in each case are much the same; the only problem is to combine them properly.

At Yellow Springs, Ohio, are the laboratories of the Kettering Foundation for the investigation of chlorophyll and photosynthesis.

"The stakes are high indeed," says one Foundation official. "This research may bring about a hundredfold increase in the world's production of food, make unlimited quantities of fuel, lubricants, and fats directly from the rays of the sun and the abundant chemicals of the earth, and perhaps find a way to utilize a major part of the sunlight, now wasted, which falls on the earth."—(*World Digest*, March 1960).

GROW OLD ALONG WITH ME

By NURSE COOPER

A PICTURE of health is a description which, if you are growing old, may seem more applicable to your latest grandchild or the baby next door, than to yourself. Nevertheless, there is a picture of health for the old as well as the young, and one thing which can spoil that picture is anæmia.

Doctors find quite a lot of this among elderly people. It is more prevalent in women than in men. What causes it and how can it be prevented?

A large part of the blood is composed of small particles called corpuscles, some red, some white. The red ones do the job of carrying oxygen taken in by the lungs to all parts of the body. If you have too few red corpuscles you become anæmic and this shows itself in pallor of the lips and gums, in extreme tiredness, breathlessness and sometimes headache.

Not by any means everyone who is pale is anæmic however,

so if your doctor thinks this is your trouble he will probably arrange for you to have your blood tested—a very simple, painless procedure.

There are various causes of anæmia. Too little fresh air and poor or insufficient food, leading to general poor health is one; neglected bleeding piles is another, also slight bleeding from a stomach ulcer. If you suffer from any of these things see your doctor. The piles can be treated, so can indigestion and ulcers, but if ignored they can wreck your life.

Until some years ago pernicious anæmia was usually fatal but it was then discovered that raw liver cured it, and later it was found that vitamin B was also very important.

So for a long time now sufferers have been having injections of raw liver and vitamin B for this trouble, with the result they can continue their normal life and work.

Criticism of Birth Control

One of Holland's leading Roman Catholic sexologists, Mr. J. G. H. Holt told the International Planned Parenthood Conference at The Hague on May 14 that artificial means of birth control "disturb the physical relationship and inter-dependencies inherent to the sexual function." Speaking on the 'rhythm' which makes use of the infertile periods in sexual relationships, he said did not know of a single religion that had objection to the principle of this method.

Career Women's Hearts

Ambitious, tense career women are much more likely to develop coronary heart attacks than housewives, report Drs. Ray H. Rosenman and Meyer Friedman of San Francisco. In a study of habits of 250 women, they found coronary disease to be five times higher in pre-menopause career women than housewives, and eight times higher in career women after menopause. Drinking and smoking habits and amount of fat in the diet seemed to have little influence compared with personality.—(*Today's Health*, April 1960).

THE CARE OF CHILDREN'S EYES

By HENRY HOBBS, F.R.C.S., D.O.,
*Ophthalmic Surgeon,
Maida Vale Hospital, London*

I

At birth the normal eye is an incompletely formed organ: the cells of the macula (the most sensitive part of the retina) are as yet not fully differentiated and so central vision is less acute than in the adult. The globe is too short for the power of the optical mechanism—the lens and cornea—and vision is thus indistinct. At the same time the nervous mechanism which co-ordinates the movements of the two eyes is in a very primitive state.

It is not surprising that the stresses imposed by postnatal environment upon these immature tissues and mechanisms should, at times, result in abnormality. In addition, the effects of maternal disease transmitted to the foetus may result in defects of the infant eye; and the susceptibility to infection of the as-yet-ill-defended tissues of the young child renders them especially vulnerable to inflammatory lesions, many of them in association with general infections peculiar to childhood.

It is evident, therefore, that the care of children's eyes, whilst it includes the treatment of disease along lines applicable to adults, calls for special consideration of some conditions

which arise only in infancy and childhood.

Ophthalmia neonatorum.—The infant is exposed first to environmental hazards at birth, when its eyes may become infected from the maternal birth passages and *ophthalmia neonatorum* result (the term means "eye inflammation of the newborn"). Such infections are seldom serious these days in countries which possess universally efficient medical services, because the most dangerous organism—the gonococcus—has usually been detected and eliminated by rigorous treatment of the mother during the period of antenatal care. Gonococcal ophthalmitis, once the chief cause of blindness in children in England and Wales, has been responsible for only one case in the London area since the last war. It occurs still, however, in many parts of the world, and its existence calls for careful prophylactic measures for the infant's eyes immediately after birth. Treatment of the established condition by special techniques which include antibiotics and mydriatics (drugs which cause dilatation of the pupil) must be prompt and thorough if corneal damage and visual loss are to be prevented.

The milder forms of conjunctivitis (which also are referred to as *ophthalmia neonatorum*) are less prone to produce the dire effects seen when the gonococcus is present; but they are not unimportant since, if they are allowed to persist, serious complications are likely. Most cases respond to suitable treatment when the causative organ-

ism has been identified bacteriologically.

Epiphora.—Epiphora or persistent watering of one or both eyes often occurs in infants. It arises from obstruction of the tear passages which convey the lacrimal fluid from the conjunctival sac into the nose, and sometimes follows a birth infection of the conjunctiva. When it does, the inflammatory discharges may themselves be responsible for the blockage; but in others, although inflammation may be present, the primary cause is incomplete development of the tear passages themselves. In both types of case, therefore, treatment of the infection is of first importance. This may be needed for some weeks or even months; but the tear-ducts eventually open without surgical treatment in the majority of cases. Much of the inflammatory exudate lodges in the tear-sac which lies beneath the skin at the root of the nose and just below the junction of the eyelids. Repeated gentle pressure with the thumb here assists in clearing the ducts.

Visual acuity.—The newborn infant's vision is very imperfect by adult standards; it is aware of light and very little else in its early days of life. During the succeeding weeks the power of fixation develops and the baby begins to follow with its eyes objects which attract its attention; but only towards the end of the first year is development sufficiently complete for the appreciation of small details.

Serious defects of vision are not detectable with certainty during this period without detailed examination of the eye itself, and for this a brief general anaesthetic is usually necessary. As the child grows older it becomes possible to estimate the acuity of vision by subjective tests, and when it is able to recognise letters these become as accurate as the test-types used for adults. Such tests as these are all-important in deciding the child's educability; if the tragedy of blindness in infancy has to be faced, this should be done as early as possible for, by specialised methods of training—such as those employed in the Sunshine Homes of the National Institute for the Blind much may be done to enable the child to develop normal skills by the use of its other senses, more especially touch and hearing. If, on the other hand, vision is only partly reduced, he may yet be educated by the usual visual methods, if these are adapted to his needs by the use of large print, magnifying aids, etc. However, many young children found to have defective vision can be enabled to see quite normally by the use of spectacles and these, obviously, should be provided as soon as the presence of the defect is known. No eye exercises yet devised will enable a child to see clearly when his vision is markedly blurred, and, since clear vision is an automatic assumption in normal teaching methods, lack of it forms an insuperable obstacle to education.

and oesophagus among members of the sect was only one-eighth of that expected. Since Seventh-day Adventists are non-drinkers as well as non-smokers this is in agreement with previous reports that there is an association between heavy drinking and cancer of these sites."

Other research has already shown an association between cigarette-smoking and disease of the coronary arteries. Among patients who were not Seventh-day Adventists there were twice as many males as females with myocardial infarction (i.e. coronary thrombosis). Among members of the church, however, the ratio was approximately 1-1, the number of males being consider-

ably less than expected, particularly in the younger age-group.

The closing comment of the *British Medical Journal* is of great interest: "To many it will come as no surprise that the benefits of religious observance are by no means restricted to the future life. But not often before can the evidence have been put on such a sure statistical basis."

We quite agree. God's counsel and friendship are indeed worth while. The first fruit of religion should be to lead all men to live peacefully and happily here and now. The future life is a gift to be bestowed by the grace of God.—(*Good Health*, May-June, 1960).

APPENDICITIS: (FIRST AID)

By CARL J. POTTHOFF, M.D.

Appendicitis may occur at any age. Elderly people are probably less likely to suspect it than the younger, in whom it occurs more often. Pain in the lower right-hand side of the abdomen is the commonest symptom. The pain may be misleading at first, because it appears in the upper abdomen in some attacks. Fever is seldom high until after rupture of the appendix; until then there is often either no fever or a temperature of 99° to 101°. Nausea and vomiting may be noted. Constipation, mild or marked is usual, though not invariable. Other diseases may give similar evidence, but with the occurrence of abdominal pain, quick action is indicated. The constipation is often erroneously regarded as the cause of the pain, and a laxative is administered. The effect is to defer securing medical attention and to increase the chance of rupture.

What to do:—(1) Get medical attention promptly; (2) withhold food and water; (3) do not give a laxative and remember that (4) an ice bag on the abdomen over the appendix may relieve pain while medical help is being obtained. This application probably does not significantly affect the course of illness, and it may of course give a false impression that the disease is abating. *Do not apply heat to the abdomen.*—(*Today's Health*, April 1960).

Auto-accident Injuries

Design styles of automobiles partly determine the injuries drivers or passengers receive. Steering posts used to be aimed at the driver's heart, but now the bottom of the wheel of newer cars almost rests against the abdomen, Dr. Louis C. Drye, University of Louisville surgeon, points out. Seat belts can help as a safety measure.—(*Today's Health*, Feb. 1960).

Dangers in the Use of Dyes for Colouring Foods

R. D. VINE,

(Editor, 'Good Health')

MANY foods today are stripped of their natural vitamins and minerals, and then adulterated with dyes and chemical additions to make them attractive. That this adulteration is often injurious rather than health-promoting, is a fact that is becoming more and more apparent. Quite a feature of the food manufacturer's art is that of colouring. Colour has a universal appeal, and the effort to make food as colourful as possible is therefore, understandable.

The art of colouring has been applied to a large variety of popular items, including sweets, beverages, soft drinks, ice creams, margarine, cakes, icing, pie fillings, prepared desserts, even fruit such as oranges, and tinned vegetables. Yellow dyes have been used in cakes to convey the impression that the product is rich in eggs, whereas there may actually be few or none.

Natural colour pigments are not easy to obtain. So synthetic dyes derived from coal tar came into general use.

Despite the claims of food reformers who, unfortunately, did

not always have scientific data to support their contentions, synthetic dyes of all colours were widely used to make processed food products more appealing. But gradually the ugly truth is coming to light. Dyes have been fed to rats, dogs, and other creatures, with striking results. Certain orange, green and blue dyes, for instance, are proved cancer-producers. One widely used orange dye produced leucocytosis, anaemia, diarrhoea, and early death. Among dogs reactions were various, some surviving with no noticeable effect, others suffering like the rats, and dying early. Similar conditions resulted from certain red dyes, among which were liver and bile duct damage, also damage to the spleen, bone-marrow, muscles, and genital organs.

The International Union Against Cancer, meeting in Rome, listed twenty-nine dyes as potentially dangerous. It further stated that no food dye at present meets "agreed criteria of safety." Fortunately aware of the dangers, the Food Standards Committee recently issued a ban on the use of at least thirty of the coal tar dyes.

The importance of care in the choice of processed foods, and of preferring foods which are in as natural a state as possible, is clearly evident in the light of the above facts.

Anxiety Neurosis

Available data lend no support to the idea that "anxiety neurosis" is a diagnostic entity caused by a specific physiologic or psychologic disorder. There is no way of distinguishing it from other forms of neurosis. The idea that anxiety, or the need to avoid it, is always the prime motivating force in human behaviour is not based on substantial evidence.—(*McLean Hospital*).

no day-schooling was possible he must be a weekly boarder in order for him to maintain his speech and contact with the family. Finally we succeeded in arranging foster-parents living in the L.C.C. area and the authorities reluctantly agreed to allow Bryan to go to London.

After four years with the London unit, he went to a new residential secondary school for the partially deaf, where he made quite good progress. While he was at this school, however, we noticed that he lost a great deal of his speech as he could only come home once in every four weeks. Unfortunately due to statutory regulations and his own reluctance to remain at school when all his friends had left, he had to leave school at 16, just when he was making real progress and showing enthusiasm for gaining knowledge of all kinds.

Now what? At 16 we were still faced with the problem of what Bryan was going to take up as a career. At one period we had hoped he would become a farmer, as he was intensely interested in animals, but suddenly his interest in this direction died. Likewise he showed interest and talent in art, and we arranged for him to have special tuition, but this he would regard only as a hobby. We were surprised when he himself provided a solution to the problem, even if it is only a temporary solution—he decided he wanted to be apprenticed as a painter and decorator. This is far less ambitious a career than we had hoped for, but he seems happy in his work, especially because

he is working in his father's building contractor's business. Bryan, who has always had a keen sense of humour, appears to be well liked by his fellow workers, who also say he is good at his job. He is certainly very conscientious.

We always find that Bryan would much rather stay quietly at home, but with an effort we get him to go out occasionally. When he does, he always enjoys himself and is continually gaining confidence which is enabling him to hold his own with hearing people.

Conditions today are very different from those facing us when Bryan was young. Indeed we now have a partially deaf unit attached to a primary school in our own town—a thing my husband and I always hoped for, as we feel that it is of the utmost importance to keep a deaf child within his own family circle instead of sending him to a residential school. What is more important is that today officials are more understanding and many more people are interested in helping and educating the deaf, especially the very young. I feel, therefore, confident that any parents who discover they have a deaf child should find the education of their child much more simple than my husband and I did seventeen years ago.

Incidentally, as I write, Bryan is engaged in a lively political argument with his brother and sister, and the family have promised him a silver soap-box for his birthday present. (*Mother and Child*, Jan. 1960).

HOME TREATMENTS

By NURSE MARY CATHERINE NOBLE,
R.P.T.

*Ice-Pack for Sprains and Acute
Joint Inflammation*

DURING the first warm days of summer, boys think of cricket and girls' thoughts turn to tennis.

Let us interject into this happy hum of activity the thought of possible injury. Johnny, in his enthusiasm might sprain an ankle; while sister, after one eager dash to return the ball, could come home with a sprained wrist. What do you do?

Sprains and joint injuries swell quickly. Usually the small blood vessels are injured and there is bleeding into the tissues. This accounts for the black-and-blue appearance that often follows such an injury. Cold contracts blood vessels and so helps to keep the swelling at a minimum; therefore, an ice bag or ice compress is a good *first-aid measure*. If possible, place the injured limb in cold tap water for thirty minutes every two hours for the first eight to twelve hours. If this is not possible, an ice-bag or compress is the next-best remedy.

If the ice-bag is used, it should be filled about half-full with finely chipped ice. If the ice is fine, the bag will fit to the contours of the part more readily, and expelling the air will make the bag less bulky and will slow down the rate at which the ice melts. The bag should be wrapped in a thin towel to protect

the tissues from freezing and absorb the moisture that forms on the outside of the bag as the ice melts.

While an ice-bag is easier to prepare than an ice-compress, a compress fits more readily to the contours of the area to be treated and can cover a larger area with less discomfort.

It is wise to use a piece of plastic or rubber sheeting to protect the bed when using either the bag or the compress. Ice-bags have been known to leak, and they often sweat as the ice melts. And there is always the chance that melting ice will soak through the towelling of a compress.

Any application of cold or ice should not be left on continuously, but used only for thirty minutes every two hours. This prevents tissue-damage from the cold, and permits freer blood circulation during the time when the cold is not on the part.

Here are some points to remember in preparing an ice-pack:—

Articles needed:—(1) Light flannel bandage or piece of flannel to cover the joint to be treated. (2) Two or three large towels. (3) Two pieces of plastic or rubber sheeting, one to wrap around the pack and pin in place and the other to protect the bed. (4) Finely crushed ice. (5) Safety pins.

1. Cover the joint to be treated with the flannel. An ankle or wrist can be bandaged lightly. A shoulder with acute bursitis or inflammation would have to be covered. The ice should not be placed directly on the skin, or freezing would occur.

2. Spread the towel out on a flat surface. Over the towel spread the finely crushed ice in a layer about one inch thick. Leave a border that can be turned in over the ice on all four sides. Turn this border over the ice and cover with the second towel, so that the ice will not spill as it is placed around the joint. Pin securely in place, but not so tightly that the compress will be uncomfortable. The plastic or rubber-sheeting should be pinned over the compress.

3. Protect the bed with rubber or plastic-sheeting.

4. Continue the application for thirty minutes.

5. Remove the pack. Dry carefully. Bandage the area if so ordered by the physician.

6. Repeat the procedure every two hours for the first eight to twelve hours.

Precautions:—Observe the reaction of the skin to the cold to avoid tissue-injury by freezing.

Indications:—(1) For sprains or torn ligaments: After the first eight or twelve hours the doctor may recommend hot and cold applications. (2) Acute bursitis. (3) Acute joint inflammation or rheumatic fever and acute infectious arthritis.—(*Good Health*, London, May-June, 1960).

Only Time will Tell

We have stressed the point that all medicine must be experimental. No matter how many tests are made on animals, the use of a drug in humans must be experimental because of the individual reaction. The short-term reaction may be sharp and sudden, and when this does occur we may be put off with excuses like "allergy", and so on. But the long-term effect is much more important because remedies may be used for years before they come under suspicion and their damaging effects are properly assessed.

An example has come to light through an editorial in the *British Medical Journal* for March 12, 1960. It concerns the intramuscular injection of a drug—Inferon—that has been widely used, and the editorial ran: "Over the past five years, on account of its ready absorption from the intramuscular site and its low toxicity, the preparation has found wide application in the treatment of human iron-deficiency anæmias, including those of pregnancy and rheumatoid arthritis."

But researchers, conducting extensive animal experiments, now claim that there may be a carcinogenic (cancer) risk in such injections, and the danger signals are beginning to go up all along the line. Of course, even the animal experimenters themselves are inclined to reverse their own conclusions and suggest that animal experiments may not be strictly applicable to humans, but the observations have been definite enough to make those in authority anxious to call a halt to the treatment. The editorial concludes: "We cannot affirm the hazard to man, let alone measure it. Further, it may well be that *Inferon* has a useful place in the treatment of such cases of iron-deficiency anæmias as are otherwise intractable in the elderly. But the existing evidence is certainly sufficient to warrant, and indeed to demand, its speedy withdrawal from any kind of general use in man."

This demand, readers may note, comes after the preparation has been in widespread use for many years.—(*Health For All*, May 1960).

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News from All Over the World

Finding the Hot Spot

Delay in finding faults in modern machinery may be costly since a broken machine does not merely involve the expense of repairs but also a loss of production. The defect nearly always causes heating up of the faulty parts through friction, so the quickest means of detecting trouble is to pinpoint any spot that is hotter than it should be.

A London firm now believes it has found the answer with an instrument which, from a distance, can detect objects which are only a few degrees hotter than their background. The instrument is particularly valuable for moving machinery since it doesn't have to touch the machinery in any way. The principle on which it works is that the electrical resistance of a strip of gold leaf varies if it is exposed to the infra-red radiations caused by a hot spot.

The *bolometer*, as it is called, is fourteen inches long and seven inches wide, and is fitted with two handles so that the sensitive area can be pointed at the machinery to pick up the infra-red rays. Alternatively it can, of course, be mounted on a tripod.

Blow Me!—A House

It won't catch fire. It won't let in the rain. It can be packed up and carried away. This giant, igloo-like structure is the first large-scale inflatable building to be produced in Britain. Six thousand square feet of immensely tough but lightweight nylon fabric, it dispenses with guy ropes, poles or struts, and is held up solely by air blown in at low pressure by a fan which costs only a penny an hour to run. Already in use for engineering, building, transport, survey exploration, the airhouse may one day be suitable for private residence.—(*Tit Bits*).

Solar Car

An automobile which runs on energy from the sun will be displayed in London by an American scientist in August 1960.

Dr. Charles A. Escoffary, a physical chemist from the International Rectifier Corporation in Los Angeles, will demonstrate his

invention—believed to be the world's first solar car.

A model of an early American car, it derives its energy from a 10,640 cell battery strapped to the roof.

It can reach a speed of 20 miles per hour and can operate for three hours on a full charge of electricity.

The Corporation believes that solar energy batteries like that which drives the solar car, can be produced for 2,000 U.S. dollars each.—(*Reuter*).

Polythene Gloves

A British firm is retailing disposable polythene gloves, which they feel will be of great value in businesses where food, chemicals, inks, etc. are regularly handled. They are made in medium and large sizes from tubular polythene film, and may be obtained in thicknesses up to five thousandths of an inch.

Chlorophyll by Synthetic Process

Two German chemists have discovered the way to produce chlorophyll by a synthetic process, the German Chemical Industry Union announced recently.

Chlorophyll is the mysterious substance which makes plants green. Its essence holds many biochemical secrets. Scientists have been seeking for decades to produce it artificially.

The two chemists made the discovery after 20 years of research, the announcement said and added it was "a great new achievement for chemistry" and of "inestimable significance for mankind."—(*A.P.P.*)

Reducing Heart Damage

Animal tests indicate that damage to the heart muscle from a heart attack could be reduced by 25 to 50 per cent through the use of clot dissolving chemicals. The chemicals are enzymes such as fibrinolysin or plasmin. They apparently flush away a "sludge" which forms throughout areas of the heart-muscle which are deprived of blood and oxygen when a coronary artery is shut down. (Research from Sloan-Kettering Institute, New York).

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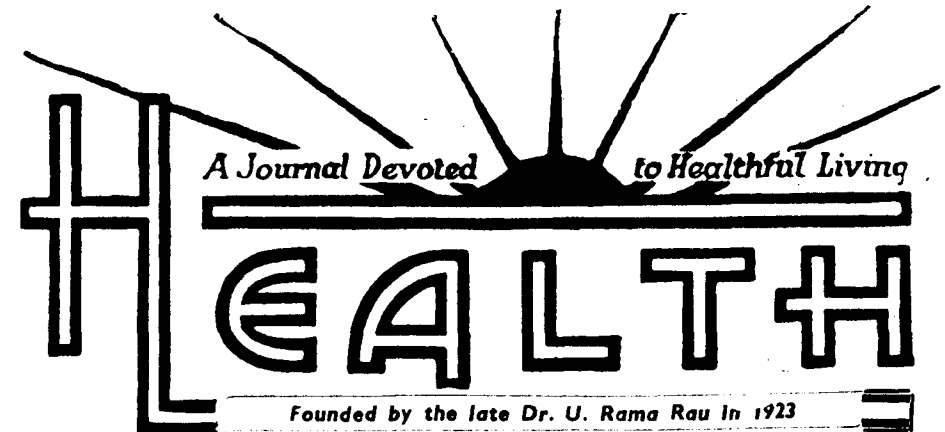
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SLUMS AND SLUM DWELLERS

It is indeed disconcerting to know that the slum population in the City of Madras has risen considerably during the last five years, from two to three lakhs, in spite of efforts at slum clearance by the Corporation of Madras. The state of affairs in other large cities of India is probably akin to that in Madras. The overcrowding and insanitation in the slums are appalling. The *cheris* in Madras have become slums because the people who live in most of them wish to avoid paying rent. So much so, they have come to feel that there is nothing wrong in occupying any open land anywhere, and thus refuse to move unless better accommodation is provided. Another feature of this problem is the steady flow of unskilled labour into the City attracted by the higher daily-wage paid in urban centres. This has depress-

ed the wage-rates of town labour, "created slums and encouraged the growth of vagrant, houseless labour which is easily exploited by middlemen, politicians and labour leaders on the look-out for grievances."

It was therefore, welcome news that our Industries Minister Sri R. VENKATARAMAN gave at the Mayor's Slum Improvement Conference held on 4th ultimo at the Ripon Buildings, Madras, when he disclosed that the Madras Government proposes to bring in legislation in the current session of the Legislature to prevent new huts coming up in slums and to remove such new huts put up on Government, Corporation or the City Improvement Trust land. Such legislation to have the desired effect should cover privately owned land also. The Minister told the Corporation that the Government

were, however, ready to subsidize tenements to be let at low rents.

Though the Government of India's subsidy of Rs. 112 lakhs is available for slum clearance, the Mayor admitted that the Corporation was not able to use it because they could not collect rent from the occupiers of existing tenements. Another difficulty would appear to be that they were not able to provide space for all the slum-dwellers in one area "and the slum-dwellers were reluctant to move away." Mr. VENKATARAMAN made it clear to slum dwellers, in this context, that in no circumstance could the inhabitants become owners of the land occupied by them. It was in the false hope of securing ownership of the land that most people refused to leave the slums and shift to other places shown to them. It was impossible to rehabilitate all the people of a slum in a particular area itself, and it would be futile to seek revision of the Union Government's conditions and specifications. The reluctance on the part of the slum dwellers to move is to a large extent due, we gather from the discussion, to the political encouragement they get, so that they will neither pay rent even when they can afford it, nor move into new areas if they cannot have all their friends with them. Sri VENKATARAMAN said that the

Government would even give sanction in advance to the Corporation to purchase lands beyond the City limits, since land values have risen steeply in the City itself. He would however, appear to forget that the slum dwellers will refuse to go out-side the City on the ground that they *must* live near their place of work. This is one reason why it is difficult to move these obdurate pavement-squatters. Unfortunately, the pavement dwellers and the slum dwellers of Madras have not been properly surveyed and studied by sociologists. Such surveys alone will, in our opinion, enable the authorities to plan permanent housing for them.

The need for a more realistic policy in checking the growth of slums and in clearing the very bad ones is thus manifest. The incessant influx of migrant labour into the City should be tackled by legislation and by suitable measures to prevent encroachment.

Subsidized housing, such as is under contemplation, is really necessary on a large scale but even such quarters may remain empty, so long as slum dwellers believe that the normal laws and regulations that others have to observe, do not apply to them. A firm but tactful handling of a difficult problem is therefore, indicated.

Tuberculosis

Public health statistics do not usually disclose the true state of affairs regarding the cases of death due to tuberculosis among children; this is because tuberculosis in infants, unlike in adults, did not manifest as cough, or bringing out of sputum or blood. In our hospitals in India, a fair number of beds in children's wards are occupied by tuberculous meningitis or tuberculous bone cases.—(Dr. S. T. Achar).

YOU AND YOUR BLOOD-GROUP

(Your blood can be life-saving whatever its group)

JOHN EARLE, M.B., B.Ch.

BLOOD-GROUPS were discovered in the early years of this century. Each person is in one of four groups, which are called O, A, B, or AB. About half are group O, a third group A, and the rest group B, except for three per cent AB.

People can be divided by eye-colour, too, and eye-colour is a very similar phenomenon to blood-grouping. Eye-colour obeys the laws of heredity and so runs in families and races. Blood-groups follow these same laws.

The National Blood Transfusion Service has tested blood from thousands and thousands of donors and patients all over England, Scotland and Wales. Blood-groups vary in different parts of the country. Some areas have more people in one blood-group than in another. It appears that the early southern invaders of the island drove the natives before them. And now we have proof of their activities not only in our language, place names, and churches, but also in our blood.

Blood from one group can almost always be given safely to a patient of the same group. If the mixed bloods are seen under the microscope, the cells are floating separately and freely as in any one person's blood.

If group A blood is mixed with group B blood, then the cells clump together. If this was to happen in your blood-stream, a main blood vessel could easily be blocked with serious results.

Before the discovery of blood-groups, it was only a matter of chance whether clumping occurred. However, besides the four main groups, there is a host of minor groups. Blood from donor and patient is normally mixed under the microscope before transfusion in case one of these minor differences leads to clumping of the cells. Very occasionally a patient needs blood so urgently that this test is omitted to save time. Group O blood is then given, but a very careful watch is kept for any reaction.

I recently gave a talk on transfusion, and before I started I asked some of the audience what they wanted to know. "I wouldn't mind giving blood," said one lad, "but the thought of having someone else's in me. Oh no!"

"Suppose you needed it badly?"

"However ill I was, I wouldn't have any of old Jones's blood."

The vicar had been in the North African campaign. "Yes," he said, "I remember. The men came in drained and dying. We gave them some blood, and a cigarette, and in a few hours they were ready for whatever the surgeons had to do."

The lessons taught by treating war casualties have been applied to peace-time injuries. Early transfusions have saved many men and women from death.

Emergency.—Suppose a man falls from a height, breaks his

leg, cuts his arm, and gets burnt as well. In a matter of minutes he may have lost three to four pints of blood out of his original nine or ten. *Early transfusion is vital* to make his subsequent treatment safe; the hospital must therefore have enough blood of the correct group. One patient in five who needs transfusion will need a transfusion of half a gallon (about 80 ounces) of blood.

If human blood is mixed with the blood of Rhesus monkeys, it either curdles or it does not. The blood taken from eighty-five per cent of people does curdle. They are called Rhesus-positive. The remainder are Rhesus-negative.

If a Rhesus-negative woman marries a Rhesus-positive man they will probably be very happy! Such a marriage has the same chance of children as any other, but the blood-groups involved mean that in the second or subsequent pregnancies, the child *may* destroy its own blood. I repeat *may*. For, I have seen a family of nine children born to such parents with no trouble at all, and another family of six who were all transfused except the first.

The blood of a Rhesus-negative pregnant woman can be tested when she is 32 to 34 weeks' pregnant. Antibodies may be found. If they are absent, no transfusion is likely to be needed for the child. If however, they are present, the child may need transfusing. So it is most desirable that the mother should be confined in a unit which is used to this type of work.

In the past five years I have seen half-a-dozen mothers whose blood contained these antibodies. Only one child needed two transfusions. The others did not. Rescuing a Rhesus baby from death in the first few days of its life is a dramatic business. Rhesus babies are talked about far more often than they are met, and it is very uncommon for such a baby to be untreatable.

Giving blood is simple. When you donate blood you are checked to see you have enough to spare. The doctors drawing the blood ask if you have had certain illnesses, which are transmissible through blood. If you have not, and you are under sixty, they let you continue. The doctor who takes the blood injects a little local anæsthetic after you have made yourself comfortable on a couch.

When I give blood all I feel is a pinprick. I always go in with warm arms so that my veins stand up nicely and the doctor inserts a needle and draws my blood. I usually take a quarter of an hour to fill my blood bottle and my wife often beats me in this race.

After this, you have ten minutes' rest and a cup of tea. (It is coffee, Ovaltine or Bourne-vita in India). Your blood is treated to prevent clotting and is stored in a refrigerator until it is needed. Your bone marrow will make the pint up for you in two or three weeks and during that time you feel no different from usual.—(*Family Doctor*, London, May 1960).

GIDDINESS

*

DR. (MRS.) D. F. KHUSRO

A VERY common complaint, giddiness, is experienced by some as a vague unsteady, swimming feeling in the head lasting for a few seconds, or as a sensation of spinning or being spun round and round very quickly, or as an impression that every thing in view is flying past obliquely or sideways or up and down. Sometimes this may be so severe or prolonged that it is impossible to stand or sit or walk erect.

The cause of giddiness has to do with the body's very complex balancing machinery which enables us to stand, sit erect without conscious effort, walk straight, or ride a bicycle. An important part of this machinery is the internal ear which is situated within the skull near and behind our external ear on either side. The internal ear consists of three little semicircular canals, each containing a fluid and each set works in unison with the other. The slightest movement of the fluid within these bony tubes causes the sensation of being moved, and giddiness is believed to be due to such movement. If you spin round very quickly you can make yourself giddy as the fluid in these little tubes is not going round as fast as your head. Many patients who have been bed-ridden in long illnesses experience attacks of giddiness when beginning to sit up or move about again, for similar reasons.

The position of the body is determined by muscles which automatically relax and contract on receiving messages from certain special centres in the brain, which continually receive messages from the eyes, feet, lower limbs and what is most important from the internal ear; your position is thereby maintained and movements carried out without your conscious effort.

Giddiness is often due to ear trouble and to anything like wax in the ear that will disturb the level of the fluid in the little bony tubes. This wax presses on the drum and the pressure is transmitted to the fluid in the semi-circular canals disturbing the level. Similarly, a common cold causing congestion of the nose and throat can block the Eustachian tubes which connect the throat on each side with the inner side of the ear and bring about a disturbance of the level of fluid in the semi-circular canals, causing giddiness.

But giddiness can occur without any evidence of ear trouble. It can occur in persons with anæmia and low blood-pressure; for a poor condition and insufficient supply of blood and oxygen can upset the balancing apparatus; so can also a high blood-pressure and hardened arteries. Giddiness can also be a warning sometimes if accompanied with headaches and speech difficulties in elderly people of an impending stroke. It can also occur at the menopause as a result of unbalanced circulation due to glandular disturbances.

Certain drugs like aspirin or quinine taken over long periods

or in very big doses often cause giddiness. Luckily quinine is no longer popular in treating malaria. Many people feel giddy when standing at great heights and viewing the scenery below; this may be psychological.

When giddiness persists or recurs at intervals the doctor must be consulted; if it persists and is accompanied by other symptoms like head-noises or vomiting, you must promptly lie down and remain perfectly still till the symptoms pass off. Sips of water through a feeding cup must alone be given. Careful examination will reveal any specific cause. A very common cause is the accumulation of wax in the external ear, which forms a plug filling up a good part of

the ear passage; the ear passage must be wiped clean every day with a twisted cone of a handkerchief. The accumulated wax can be easily removed by careful syringing after softening it with glycerine or soda-bicarb solution. Never use a piece of broom-stick or other pointed wax-remover, lest you seriously damage your ear.

If no cause however, is revealed then treatment should be directed to the general health, and to any focus of infection especially at the roots of the teeth and sinuses. Regular daily doses of a suitable sedative, prescribed by your doctor should be taken. A salt-free diet with a reduction in the fluid intake will also help.

Babies in High Places

At age one year or sometimes less, most babies have depth perception, and can sense the danger of "cliffs" or abrupt drops, two Cornell University psychologists report. They tested babies placed on a table top with its edge extended by a strong, transparent piece of glass. Then the mothers tried to coax the babies to crawl out on the glass. Ninety-two per cent refused, shrinking from the falling-off point, said Mrs. Eleanor J. Gibson and Prof. Richard Walk.

Several weeks before he died in 1658, William Harvey wrote:—

Nature is nowhere accustomed more openly to display her secrets than in cases where she shows traces of her working apart from the beaten path, nor is there any better way to advance the proper practice of medicine than to give our minds to the discovery of the normal laws of nature by careful investigation of cases of rarer forms of disease. For it has been found in almost all things, that what they contain of useful or applicable nature is hardly perceived unless we are deprived of them, or they become deranged in some way.

Rh-Negative Blood Valuable in Treatment

All Rh-negative blood is very valuable because it is in great demand for the treatment of many maternity cases and for Rhesus babies. Rh-negative blood constitutes only one-sixth of all the donors.

Group AB blood is the least common group, occurring only three or four times in each hundred donors, so the combination of AB Rh-negative is really very uncommon and, therefore, greatly prized.

SAFETY FIRST IN INDUSTRY

THE wearing of suitable footwear, suitable headgear and the use of eye protection would have prevented perhaps 25,000 injuries, that is a seventh of all reported injuries in 1958, the last year for which full figures are available, according to Mr. T.W. McCullough, the Chief Inspector of Factories in England.

Writing on 'Safety in Industry' in the *Financial Times* recently (7th March 1960) he said that less than 15 per cent of the 167,697, accidents reported from industries covered by the Factories Acts which kept people away from work for more than three days, were caused by power-driven machinery.

"Most of them were in the non-machinery categories and it is here that reductions must come," he added. There is then, a challenge, a challenge to all connected with industry or otherwise concerned to bring these non-machinery accidents tumbling down.

"Let us accept the challenge and see what can be done. Let us begin by considering injuries to feet. In 1958 there were 8,400 foot-injuries which occurred during the handling of goods or materials. It is a fair assumption that most of these would have been prevented if protective footwear had been worn. The same can be said for the 7,500 injuries to feet classified

as due to falling articles, the 1,300 caused by molten metal and other hot or corrosive substances and the 2,800 caused by stepping on or striking against objects. The total number of foot injuries was 27,400 and in the categories discussed we have 20,000 or 11 per cent of the total of all injuries, most of which could have been prevented by protective footwear. In fact 60 per cent of the total number of reported foot-injuries occurred in just those industries—ship-building, engineering, building and civil engineering work, work at docks—where the wearing of safety boots should be regarded as a routine measure."

There were nearly 1,500 injuries to the skull and neck, most of which could have been prevented by the wearing of safety headgear in places, such as ship-yards and building and civil engineering works where things are likely to drop from above.

There were 6,400 eye-injuries, practically all of which would have been prevented by the use of suitable goggles or screens.

Mr. McCullough adds: 'Thus, in these three categories alone the wearing of suitable footwear, suitable headgear and the use of eye protection would have prevented perhaps 25,000 injuries, that is over a seventh of all reported injuries—and how much distress, misery and heart-ache, not to mention loss of production, would have been saved!'—(*International Safety Information Service*, via *Jour. Royal Inst. Pub. Health and Hyg.*, April 1960).

Millionaire's Lunch of 3 Stale Sandwiches

Two old women were found dead recently in a dirty and barely-furnished house. They had died amid want and squalor.

When the authorities entered the house and examined its contents they found some biscuit boxes in which were hidden *several thousand pounds* in notes.

Medical evidence revealed that these elderly sisters had died of semi-starvation and exposure. They lacked proper bed covers and had no heating whatsoever.

Clothes and their way of living are no guide to a person's financial status. Many people live very well—for a time—on credit.

They are the "poor rich." There are also the "rich poor," like those two old women.

Wealthy but modest.—Some years ago a shabbily dressed man went every morning to a small office near the Bank of England. His business premises consisted of one large room in which the clerks sat on stools at high desks, while he, the proprietor of the business, sat alone at a small table.

Had you gone in, you would have thought that here was a small and none-too-prosperous one-man business.

You would have been entirely wrong. For it was from this meagre headquarters that one of the wealthiest merchant-bankers of the early years of this century conducted his business.

Then there was the late Marquess of Clanricarde. This multimillionaire Irish landowner was a familiar figure in London's West End. At lunchtime he would leave his club and sit on a public bench in St. James's Park. There, dressed in clothes almost in rags, he ate two or three stale sandwiches from a paper bag.

For many years, and long after he had become an important figure in the business world, the late Lord Leverhulme continued to live in a small red-brick villa that would have suited an ill-paid clerk, while his wife did the housework.

This was not miserliness, but established habit. He lived as he did because that *simple way of life suited him*.

John Elwes, who died at the dawn of the nineteenth century, inherited a magnificent country property and a string of London houses, yet he lived in utter poverty, squalor and misery. When he had a journey to make, he walked. When the rain made the highway muddy, he removed his boots and stockings and went barefoot. When his journey was a long one he did not sleep or eat at a tavern, but crept under a hedge.

His idea of a meal was to buy a penny loaf, tie it up in a bag, boil it and then eat it, washing it down with water. His great mansion fell into ruin for lack of upkeep. Rain dripped through the ceilings of the rooms, but he would not spend a penny on repairs.

Once when the nephew to whom this vast property was to pass came to visit him, the unfortu-

nate visitor was drenched to the skin as he lay in his bed. In the morning he protested to his uncle. "Oh, that," replied the miser. "I don't mind that at all myself." Whenever one of his London houses became untenanted, he would walk to London with the old woman who "did" for him, and take up his residence in the unfurnished house.

Soft-heart secret.—And it was in one of these that he was found dead. He lay on an old mattress on the floor of an unfurnished bedroom.

Two days later, they found the old woman. She, too, was dead in the attic bedroom. Both, it transpired, had died of natural

causes accelerated by cold and semi-starvation.

And now for the unexpected. This man, who had grudged himself the bare necessities of life and let his properties fall into ruin, had a soft heart.

He could not resist a hard-luck story. And though he scrimped and saved, he would lend money on a hard-luck story. When the lawyers had finished with his affairs they found that he had lent £150,000 that had never been repaid.—(G.G. in *Tit Bits*, London, 28-5-1960).

[Note:—Such misers are found in every country who live a life of penury and do not help in promoting the health and welfare of humanity with their enormous savings.—Ed. HEALTH.]

GALL BLADDER TROUBLES

By J. D. RATCLIFF

EVERY machine has its weak spots. The most complex, most awesome of all machines—the human body—is no exception. One frequent break-down point is the little, pear-shaped, glistening blue sac in the upper right abdomen, the gall bladder. This organ, is an even more frequent target for abdominal surgery than the appendix.

The gall bladder is attached to the underside of the liver, to which it is connected by a series of ducts. The duct system also links it with the duodenum, the first looping section of the small intestine. Its main job is to store the bile—a bitter, golden-yellow fluid essential in digesting

fats—which is continuously secreted in droplet quantities by the liver.

At mealtimes, a hormone released from the small intestine carries a message to the gall bladder. Its muscular walls contract. A valve at the duodenum opens. Bile is delivered into the stream of food in process of digestion. With the help of pancreatic enzymes, it breaks down fats so that they can be picked up by the blood stream and distributed around the body.

Inflammation is more serious. Under normal circumstances, the gall bladder concentrates bile, extracting water and reducing the yellow digestive juice to

approximately one-sixth of its original volume. But at times the process is carried too far. Over-concentrated, the bile becomes an irritant. The organ's walls and ducts become inflamed. This opens the way for bacterial invasion.

Infection originating in the gall bladder may spread to other organs. As inflammation progresses, walls of the gall bladder and ducts often become gangrenous. Unless the infection is brought under rapid control they may rupture and empty the contents of the gall bladder into the abdominal cavity. Peritonitis, sometimes fatal, may follow. Surgery—usually removal of the “hot” gall bladder—can be life-saving in this critical situation. Fortunately, after the gall bladder is removed, the bile can pass directly from the liver through the main duct to the duodenum (if it is clear of obstruction) with no disturbance in function.

Stones are a more frequent cause of gall-bladder trouble. When the bile in the gall bladder becomes too concentrated, its constituents start crystallizing. One doctor sums up this course of events: “Bile turns to sludge, sludge to gravel, gravel to stones.”

Gall-stones occur at all ages, but are most frequent among the higher age-groups. They appear more often in women than in men.

Stones may be tiny, and hundreds may be present. Or there may be a single stone, as large as a hen's egg. They are made

of calcium, cholesterol and bile pigments.

Generally speaking, large stones cause less difficulty than smaller ones. Being too large to enter a duct, they may lie harmless and symptomless for years. On the other hand, some stones may be so tiny that they slip through the duct into the intestine quite easily. It is the middle-sized stones, those large enough to block quill-sized ducts, that create the most trouble.

Such blockage can cause some of the most acute pain known to man. In lightning-like flashes, pain radiates to the shoulder, back and other body areas. The colicky attack may be over in a few seconds, or it may persist for an hour or more. The victim may be violently nauseated, sweat profusely and have difficulty in breathing. In such situations doctors can take little immediate action beyond administering morphine to relieve pain, and other drugs to reduce spasm of the gall bladder and its ducts.

Blockage often produces other symptoms. A blocked duct may, for example, back bile into the liver, which has no means of disposing of it. Excess bile may then be picked up by the bloodstream and distributed about the body resulting in jaundice.

For years, quacks have preyed on gall-stone victims, promising to break up stones in the body. Their favourite “medicine” is pure olive oil. In the digestive tract, olive oil reacts with alkali to make tiny soap pellets. These pellets, the quack invites his

victim to believe, are broken-up stones. At present there is only one way of ridding the body of these offenders—surgery.

Actually there are few ailments for which diagnosis is so positive, or an operation so effective, as for gall-stones. Let's say that you have been bothered with digestive upsets and mild bouts of abdominal pain. If your doctor suspects gall-bladder trouble, he will first attempt to *feel* the organ. If there is blockage, the gall bladder may be distended and hard. Next, he will want X-ray studies. You will be given a few pills to swallow at night before going to bed. The pills contain an iodine compound which, discharged by the liver into the bile ducts, makes the gall bladder visible on X-ray film.

A series of perhaps six X-rays will be wanted. Towards the end of the procedure you will usually be asked to eat a fatty meal—perhaps scrambled eggs and heavily buttered toast. This *should* cause the gall bladder to empty. X-rays will check on the extent of the emptying.

If stones are obstructing a duct, a decision must be made as to whether or not to operate. Various considerations—severity of pain, frequency of attacks and the patient's age, for example—influence the decision. (Gall-bladder surgery can be a serious business for people over 60).

In proper hands, the operation is one of the safest of the major

surgical procedures—except for “hot” gall-bladder operations where infection is present.

The operation takes approximately an hour. Removal of the gall-bladder itself—usually the preferred procedure—presents no particular problem to the skilled surgeon. Checking for stones in ducts is slightly more difficult. The surgeon may explore the ducts with a probe. A more satisfactory method is to inject a radio-opaque dye into the duct system, then take an X-ray while the patient is still on the table.

Sometimes it is necessary to cut out a blocked section of duct and stitch the open ends together. Often, however, the block is big enough to make it impossible to draw the ends together. There are several solutions. One is to draw up a loop of intestine, make a new opening and attach the duct stub to it.

After successful gall-bladder surgery, most patients find that they can eat normally without difficulty.

Can anything be done to *prevent* gall-bladder difficulties? Some doctors answer with a flat “No.” Others, noting that the gall-bladder trouble often accompanies gross overweight, think that diet control and exercise may be helpful.

You may, or may not, be able to prevent gall-bladder misery. But you now have the consolation that if it does strike, surgery can correct it.—(via *Reader's Digest*).

HEALTH EDUCATION:

Philosophical Bases

J. KEOGH RASH,

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THE profession of health education is relatively young and as yet has not clearly defined its purposes and goals. Since a clarification of basic beliefs is essential to the definition of goals and purposes, it is time to examine our beliefs and define our purposes and set some goals for the profession. What do we believe about health?

The World Health Organization has defined health as "complete physical, mental, and social well-being, and not merely freedom from disease or infirmity." The Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association in an early report (1941) emphasized the "physical, mental, social, and moral" aspects of health.

The comparatively recent development of the psychosomatic emphasis in medical science supported by the emphasis on a satisfactory spiritual philosophy seems to justify a broad interpretation of health. In the light of this interpretation, health is here defined as *physical, emotional, spiritual, and social well-being*.

Four-fold symmetry:—To illustrate the four-fold nature of health, we may think of life as represented by a sphere, with

segments consisting of the four aspects of health—physical, emotional, spiritual and social. Only as long as the parts of the sphere remain in balance and symmetry is maintained may the ball be thrown or rolled accurately.

In this age of speed, it is not difficult to realize the importance of symmetry if the ball is to roll along life's highway with any degree of stability. The driver of a speeding automobile soon realizes the importance of a balanced wheel. The presence of a boot in an automobile tire may not be noticed at low speeds, but as speed is increased the extra weight of the boot is multiplied by centrifugal force, creating an intolerable, hazardous condition.

This is not unlike the health picture for an individual. Failure to maintain symmetry through neglect of any aspect of health results in an unbalanced individual. Such an individual may get along very well under ordinary circumstances, but in times of catastrophe or under the pressure of the present stresses of life, he runs a great risk of cracking up and will certainly do so if the stress becomes sufficiently great.

Symmetry in the sphere of health as maintained or achieved by proper attention to the four-fold development is increasingly vital as the pace of life continues to accelerate. Failure to give attention to conservation of any aspect of health places the individual in jeopardy. Each individual must give proper attention to being a well-rounded individual.

It is important that we recognize the inter-relatedness of the four aspects of health. As recognized in the development of psychosomatic medicine, no single aspect of life exists independently of the others. Physical, emotional, social, and spiritual well-being are so inter-related and interdependent as at times to be indistinguishable. In health, many factors appear in more than one aspect. Above all, health is not and cannot be static or compartmentalized.

The crown of health:—Health would seem to be the most important single aspect of life. In terms of monetary or property value, fame, influence, or prestige, it is impossible to place a value on health. There is an old Egyptian saying which illustrates the importance and common feeling about health: "Health is a crown upon the well man's head but no one can see it but a sick man." Nothing in life is so taken for granted when possessed, or so sorely missed when gone, as is health.

This fact suggests an important consideration in health education, a *philosophical basis*. If health is so commonly the concern of the sick only it may be that we are failing to emphasize those aspects of health which are challenging to well persons. Furthermore, we are certainly failing to take advantage of teachable moments. For example, few hospitals and almost no physicians have a health educator on their staff to assist the patient or his family in the solution of health

problems or in living within known limitations.

Health education:—The American Association of School Administrators has suggested that "the goal of intelligent self-direction of health behaviour by every person in our society is an ideal toward which to strive." In other words, the health educated individual will be able intelligently to direct his own behaviour concerning, physical, emotional, spiritual, and social problems. Health behaviour, in this instance, includes such things as personal hygiene, selection and purchase of health supplies, medical services, acceptable attitudes in social relationships, and a satisfactory and stabilizing spiritual experience. This does not imply meeting all of one's needs by himself. Indeed, this would not be intelligent direction if one were to try.

Within the school programme there are two broad classifications of health education, direct and indirect. Indirect health education (incidental or concomitant learnings) accrues from one's everyday experiences; this is the kind of education represented by getting accustomed to clean surroundings and feeling uncomfortable when they are not clean. Direct health education is health instruction—the process of providing opportunities for learning experiences which will favourably influence knowledge, attitudes, and practices resulting in intelligent self-direction of health behaviour.

Health instruction may be thought of as the process, health education as the result. Health instruction may be provided effectively in health education courses (the concentrated health course) or in units or lessons in other (usually related) courses. In the latter, the method employed may be either through direct teaching or through correlation, that is, showing the relationship of the health problem to the subject being studied.

Health is not an end in itself; it is a means to the end of a fuller, richer, more enjoyable life which will make possible a higher service to mankind. Furthermore, it is a safe assumption that health will not be conserved by making it the primary objective of life. Important as it is, it loses its proper place in our perspective of life and remains, like the will-o-the-wisp, always just outside one's grasp when it becomes the primary objective.

The nature of health is such that efforts of health education should be directed toward conserving health.

Medical science may at times need to be called on to assist nature in restoring the healthful condition of the organism. Health education can be of assistance to medical science through the development of intelligent self-direction of health behaviour, thus conserving health and rendering less likely the need for restoring health. It is important that health education be distinguished from the practice of medicine. We should understand that one of the most important contributions of health education is to promote intelligent recognition of the need for medical attention and proper selection and use of health services.

Health instruction provides countless opportunities for the liberal or cultural education. However, we must not lose the proper perspective for health education. *Its aim is intelligent self-direction of health behaviour.* To the extent it is able to realize this aim, it may be said to be successful and justifiable as an integral part of the educational programme.—(Johper, June '60).

Cod-liver Oil

Cod-liver oil is just as effective given between or during meals, but any oil or cream tends to diminish appetite, and so it is best given after meals to toddlers. It is probably easier to give before the feed to babies, though some of them like it so much they will even take it after the feed.—(Family Doctor, May 1960).

Bursitis

Work or sports involving repetitive motions, made quickly and jerkily, are often likely to bring on bursitis of the shoulder due to friction and wear and tear of shoulder tendons. Simple treatment involves rest—but not too much of it—cold compresses used several times a day, and properly planned exercises, says Dr. Beckett Howorth of Stamford, Connecticut. Injections of hydrocortisone will bring dramatic relief.

Troublesome Adenoids in Children

No mother wants her child to have an operation if there is another way out. So what about those troublesome adenoids? This is at present one of the sixty-four thousand dollar questions. Repeated infections cause the lymphoid tissue at the back of the nose, the adenoid tissue, to swell up. This obstructs the airway through the nose and makes breathing through the nose difficult. So children who have large adenoids breathe through their mouths and go about all the time with the mouth half open. They also snore at night. This swollen tissue may also obstruct the ends of the eustachian tube, which connects the back of the nose with the ear and so causes deafness. More dangerous is the fact that this also predisposes to inflammation of the middle ear. So, children with adenoids are liable to earache. The adenoids, and the tonsils, are composed of lymphatic tissue which filters off and destroys germs, but which like any filter may get over-worked. The tissue then becomes permanently swollen and the germs instead of being destroyed may flourish in the tonsils or adenoids, producing a harmful focus of infection. Ordinarily the lymphoid tissue is a self-cleaning filter and in the intervals between infections the swelling disappears and the germs are all removed. It is

only when one cold and sore throat follow another, month after month during winter, that the mechanism breaks down; therefore, the answer to this question then is to keep the little child away from any chance of picking-up infection. That, of course, is the real problem and in this or for that matter in any country is practically impossible because any one can introduce colds into a home. And if a child is going to school or out to parties, cinema shows etc., some sort of infection is circulating all the time. A spell of fine weather may do the trick by allowing the adenoids to recover, or a holiday by the seaside, or even a short course of suitable nose-drops prescribed by the doctor.

In general, plenty of fresh air, open windows at home, keeping away from other children and crowded stuffy places, especially theatres, buses, trams and trains, are the measures that should be taken to help swollen adenoids to recover.

There is a great deal to be said for just taking reasonable precautions and hoping that the adenoids will clear up on their own, without going to extremes. They generally *do subside in summer*, but if they do not and are really causing trouble, the normal child takes the operation for their removal in its stride and does not turn a single physical or psychological hair. If they don't seem to get any better, do go along to your family doctor and follow his advice.—(Family Doctor, May 1960).

PROPRIETARY MEDICINES

PROPRIETARY medicines are among the traditional Aunt Sallies of the 'do-gooders' in our midst. What is too often forgotten—or even never realized—is the tremendous care which is taken in the control of these preparations, including their advertising. In this respect, with our natural gift for compromise, and effectively combining legislative and voluntary control, we have evolved a system which is more effective than that in any other country. An admirable review of the present position has been prepared for a study group of the W.H.O. for a trade association representing the manufacturers of proprietary medicines; practically every manufacturer is a member of it.

The Association, which has its own medical consultants, has a code, whereby no advertisement can refer to the prevention, cure, or relief of diseases which should be in the care of a registered medical practitioner. Indeed, the word 'cure' is forbidden in any advertisement. In the case of indigestion and rheumatism, members are prohibited, to quote Mr. Hollis, 'from making claims

to treat chronic or persistent conditions of these ailments.' In addition, references, direct or indirect, are prohibited to a large group of ailments, including pernicious anæmia, arthritis, dermatitis, and varicose veins. This list, of course, is additional to those diseases to which any reference is banned by the Pharmacy and Medicines Act, 1941: e.g. cataract, diabetes, epilepsy and glaucoma. Having surmounted this hurdle, the advertisement has then to receive the approval of the Newspaper Proprietors' Association and the Newspaper Society which have their own code and their own medical consultants. Similar controls exist for advertisements in television. There may well be room for further improvement, but what the medical profession should realize is that every piece of advertising that appears in the lay press or on television has either been personally checked by a doctor or complies with two codes which have been drawn up after consultation with medical advisers. A little more hard thinking, and a little less loose talk, is what is required if standards of advertising proprietary medicines are to be raised still higher. —(*The Practitioner*, London, March 1960).

[NOTE:—And we ask "when is India going to do likewise?"—Ed. HEALTH].

Age and Food

Watch your diet as you grow older—many persons let their food intake become disorganized. One common reason is unnecessary economy on food, abetted by inflation. But false teeth, poor cooking arrangements, and a habit of dining alone can lead to choice of foods which don't provide a balanced diet.—(*Today's Health*, April 1960).

VISIBLE AND INVISIBLE FOES OF MAN

DR. R. D. VINE

IT has been estimated that there are fifty varieties of animal parasites which attack the interior of our bodies. These are supplemented by fifteen or more insect parasites that attack the exterior of the body, and as if these were insufficient to demand our attention, there are over 100 varieties of vegetable parasites that attack either the exterior or the interior of the human system.

How to resist successfully this embattled host of health destroyers is something everyone should know. The body is equipped by the Creator with a wonderful system of defence, including the skin, the internal membranes, the germ-inhibiting elements in the saliva, the disinfectant qualities of the gastric juice's hydrochloric acid, and the fighting white corpuscles of the blood which actually devour germs.

For health, the essential thing is to keep these defences in good trim. These defences will not

let us down if they are properly nurtured and looked after.

We would summarize the most important factors involved in maintaining our defensive armoury at peak efficiency. All except one are virtually free. *First* and foremost is the need for good fresh air, which means good ventilation and adequate breathing. The "fresh air tonic" costs nothing, is vital, yet so many short-ration themselves of its revivifying elements. *Secondly*: wise exposure to sunlight is also vital. *Thirdly* is the drinking of fresh water; few of us drink enough water.

A *fourth* requirement is adequate exercise. Sedentary workers please note: their defence mechanism will suffer, without a regular ration of such robust activity as gardening or walking. *Fifthly*, regular rest must not be neglected or curtailed. A *sixth* and very powerful factor is a serenity of mind: this is mainly dependent on moral uprightness.

Last—and the only factor that "costs" is the vital importance of rational diet: which means "whole" foods such as nature, rather than the manufacturer, has provided.—(Editorial in *Good Health*, London).

Old Folk's Blood

The anæmia encountered in his elderly patients was analysed by Semence, a general practitioner in England. Hæmoglobin determinations were performed on 101 men and 155 women over the age of 65. At the age of 65 the hæmoglobin levels were significantly higher in men than in women, but with increasing age the hæmoglobin level of men gradually decreased and that of women gradually increased, until at age 74 significant differences disappeared. Women living alone were found to have significantly lower hæmoglobin levels than those not living alone. The author concludes that a major factor in the high incidence of anæmia in women over 65 is poor nutrition.—(*Brit. M. J.*, 2: I, 153, 1959).

CHOICE OF FOOD TO MAINTAIN HEALTH

AT the age of ninety-nine, Dr. Stephen Smith, founder of the American Public Health Association, delivered an unusual address before nearly a thousand professional men who were anxious to learn what he considered to be the secret of long life. He explained simply: "Take care of your stomach the first fifty years of your life, and the next fifty your stomach will take care of you."

He was aware of the fact that few organs are dealt with as thoughtlessly, and even mercilessly, as the long suffering stomach. Without a thought for its possible reactions, far too many load it with substandard food, the sole merits of which are merely that it looks attractive and tastes good.

Yet radiant health, freedom from sickness, and long life, require, among other things, that intelligent thought be given to the nutritional value of what we eat. Hence the emphasis on rational diet which is an important feature of GOOD HEALTH policy. Failure seriously to consider our diet has been blamed for ninety per cent of prevalent disease. The rather provoking claim has been made that, generally speaking, sufferers have largely themselves to blame if they have such afflictions as acid stomach, or anæmia, arthritis, blood disorders, catarrh, constipation, insomnia, or any of

scores of other common maladies which rob life of its zest, diminish vitality, and destroy efficiency. The trouble in most cases—though admittedly, not in all—is simply that of *unwise eating*.

World-famed physician, Sir William Osler, claimed: "Ninety per cent of all conditions other than acute infection, contagious diseases, and traumatisms, are traceable to *diet*." And swelling the chorus of authoritative voices, Sir Arbuthnot Lane expressed his conviction that: "The food question is infinitely the most important problem of the present day, and if properly dealt with, must result in the disappearance of the vast bulk of disease."

While it is recognized that the diet of prize animals and valued pets must be specially selected, there is a notion that a healthy human stomach can cheerfully handle anything; and that provided this long suffering organ is regularly filled, glowing health is a reasonable expectation.

Such, of course, is a mistake. Hence our advocacy of a return, as far as possible, to the *meat-free*, wholesome diet which the Creator intended for us in the beginning—the ideal diet which is best suited to maintain a pure bloodstream and optimum vitality.—(*Good Health*, London, May June, 1960).

"Four things a man must learn to do
If he would make his record true—
To think without confusion clearly,
To love his fellow-men sincerely,
To act from honest motives purely,
To trust in God and Heaven securely."

The Tuberculosis Seal

*The cheapest weapon to fight
the most wide-spread and ex-
pensive disease.*

Mrs. SUSEELA DWARAKANATH, B.A.,
Madras

THE Christmas Seals as they were first known originated in 1904 in Denmark—the result of a thoughtful postman's deep sympathy for the afflicted patients—and the proceeds of the sales were used to establish a children's hospital in Copenhagen. In 1907 Miss Bissell of Delaware (U.S.A.) had a stamp printed and used the proceeds of the sale to build a Tuberculosis pavilion. In 1908 the American Red Cross conducted a nation-wide campaign to help the National Tuberculosis Association with adequate funds. In 1920, the latter association took over the sale of stamps from the Red Cross, and the stamps issued by them bore the double-barred cross of the National Tuberculosis Association. This campaign soon came to be copied by the United Kingdom, Canada, Australia, New Zealand and India too.

The population of our Indian Union Republic according to the last census is about 36 crores, and above 5 million people are suffering from tuberculosis. About twenty per cent of these sufferers die every year from this preventable disease. The disease is definitely on the increase as a result of various unfavourable conditions, such as poverty, malnutrition, scar-

city of food supply, deficiencies of essential food factors and unemployment. Our National Democratic Government is doing its very best to improve the lot of the people but lack of finance has been a great stumbling block in its way; consequently it is not possible for the State to provide all the facilities needed for the prompt diagnosis, treatment and after-care of these patients, much less for combing out all incipient cases amongst children and adults who harbour the disease and who constitute a potential source of danger.

Tuberculosis is our most expensive disease. It is wide-spread and even villages have been found in a recent survey to show a heavy incidence. False economy in measures directed towards its control and prevention will result not only in loss of life and suffering but also in a waste of enormous sums of money. Tuberculosis is an infectious disease, but differs from all other infectious diseases. When the germs of typhoid fever enter our system, the body deals decisively with the organisms; we either resist them successfully, destroy them and thereby stay free from the disease, or else the germs overcome our resistance, gain the upper hand, multiply and give us in 2 or 3 weeks active typhoid fever. If we recover, we do so in the course of a few more weeks; we do not go on for months or years with chronic typhoid fever. During our recovery the germs are killed off almost completely. We no longer have typhoid fever and we can no longer transmit it.

The whole sequence is, thus, a matter of days or weeks. The above applies to most other infectious diseases.

Not so, however, is the case with tuberculosis. We may sicken with active consumption from an infection that has taken place a month before, a year before, or ten years ago, and we may carry the infection all our lives and never even sicken at all. We obtain our infection from contact with people who have active consumption, though they may not know they have it.

Suitably planned and actively directed efforts combined with the active co-operation and support of the public, can eliminate tuberculosis from our country. This has been successfully achieved in some western countries and why can we not also try to do it? In some cases, mainly among children, acute disease results soon after infection, but in the majority of cases, however, the body is able to resist the infection; resist it but not overcome it entirely. A compromise is effected, as it were, between the tubercle germs and the human body. In spite of the infection, we continue in health, but the infection still persists and remains dormant. But as soon as favourable conditions develop the disease becomes active. The germs multiply, spread, destroy the tissues round about, and give rise to consumption. It is during this active stage that the tubercle bacilli are spread, unless the disease is recognized and active precautionary measures are adopted against infecting others.

The type of consumption which develops after the infection has persisted for a long time, (the kind that occurs in adults, when resistance is lowered), is often less acute than that which develops in children as a result of their first infection; less acute, but more persistent and more likely to develop into the dangerous chronic variety. In this form of the disease, easily recognizable symptoms do not appear till late in the day. The vague symptoms of this disease—tired feeling, loss of appetite, irritability—are often attributed only to the factors which have lowered the resistance,—poor economic conditions and the resultant mental worry,—and not to the presence of the disease itself. The only way that early consumption can be detected with certainty is by yearly physical examination of all adults, and periodical examinations of children using the latest tuberculin tests, and also when needed by X-ray examinations of the chest. The latest method of protecting children by mass B.C.G. vaccination, has been proved to be a dependable means of control and prevention.

The early detection of every active case of the disease will alone help in effective control. The man and woman, with consumption cease to be sources of infection after they come under medical care and have received training in avoiding the spread of the disease. For your own safety and protection, for the safety of your children, these cases must be detected. There

is no other measure that will assure freedom from infection. Any one of us can, for himself and his progeny, guard against the disease by personal vigilance—by repeated medical examination. But we cannot have the assurance or guarantee that all our neighbours will follow these measures and so eliminate all possible sources of infection. *A united effort is, therefore, urgently, needed. And that effort is being made now by our National and State Tuberculosis Associations,* which are the greatest forces in the struggle to eradicate tuberculosis. The National Tuberculosis Association not only plans to help the establishment of Sanatoria, where men and women with tuberculosis will be received and cared for but also preventive clinics and open air schools for infected children. The Association organizes free clinics and examinations of children and also arranges for large scale B.C.G. inoculation. Treatment at home for

suitable cases is now in vogue and as a result of the satisfactory results that have been obtained in controlled experiments in several areas, notably in Delhi and Madras, the system of domiciliary treatment is being extended under suitable clinical control.

The Seals Campaign sponsored by the Tuberculosis Association of India offers to every one of us a most glorious opportunity to prevent and control this most expensive disease of tuberculosis, by using the cheapest weapon viz., the 'SEALS' which are very cheap. During the Christmas season of 1904 the Danish people bought an average of 2 seals per person and the money realized was adequate to build a huge big hospital in Copenhagen. So for the benefit of our suffering fellowmen and for the safety of our own children we should all buy the seals in large numbers and help to rid our ancient and glorious land of this terrible scourge.

Coffee Break

Felton reviews the alleged benefits to industry of the coffee break. These include elevation of morale, increase of production, lowering of fatigue, reduction of accidents, minimization of turnover and decrease in absenteeism. An average cup of coffee contains between 100 and 150 mg. of caffeine. The daily ingestion of varying quantities of this strong alkaloid produces effects which remain essentially unexplored as to both their alleged benefits and possible toxic effects on the central nervous system, heart and gastrointestinal tract.—(*Indust. Med. and Surg.*, 28 : 433, 1959).

"Spider" Veins

Venous stars or "spider" veins frequently develop on the leg, and particularly bother young women because of their appearance. But there's little to be done about it since most attempts to overcome them have been useless and some have been harmful. The stars or spiders are related to increased venous blood pressure.—(*A.M.A. Journal*).

FAITH HEALING

(IN BRITISH HOSPITALS)

A REMARKABLE decision has recently been made by the British Medical Association when it was announced that 257 hospital authorities in Britain had granted permission for faith healers to work in hospitals, providing they had the consent of the individual medical staffs concerned. This means that spiritual healing can now take place in some 1,650 hospitals in the British Isles if patients desire such treatment. Mr. Harry Edwards, the President of the National Federation of Spiritual Healers, within the space of one year has managed to persuade medical authorities that faith healing can do good, with the result that the people who practise this inexplicable form of healing are no longer restricted to the 20 hospitals in which they were hitherto allowed to work.

Harry Edwards, a 66-year-old ex-printer, who for some years now has been regarded as Britain's leading faith healer, told an audience of 3,000 people at London's Royal Festival Hall of this decision. Mr. Edwards and his colleagues have been attracting vast audiences of thousands of people—both sick and healthy—to their services in the bigger auditoriums and halls.

The healers themselves realize that they will be able to quieten the storm of protest they have received from many doctors far more easily by showing the

results of their work, rather than by endless discussion. And this, of course, is why they are rejoicing at the opportunity of at last being able to practise so widely instead of being restricted to preaching their beliefs. They have had many triumphs in their work, even though they are unable to explain them, and hope to progress even further with this new chance of additional experience.

Meanwhile, dramatic scenes take place at each meeting held in theatres and halls all over the British Isles. As soon as the short opening services are over, the healers invite members of their audience to come up on stage for treatment. Long queues of crippled, blind and sick people form, and many can only shuffle onto the stage with the greatest difficulty. Some have to be carried and placed under the hands of the healers, but as soon as they feel the touch of the healing hands, an immediate sense of peace becomes apparent in the eyes of those seeking relief.

Many people have received immediate relief and have even been cured of their infirmities as soon as the healer's hands have passed over the area where the trouble lies, but in some cases there is no improvement whatever. This is yet another inexplicable fact about faith healing that no one can understand, because even in cases where the patient has complete faith in the healer, there seems to be no way to make the miraculous powers penetrate.

And miraculous is certainly the right word to describe the

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work of these men, who seem to be able to produce "impossible" cures simply by laying their hands on the patient. The case of 11-year-old Paul Cowell who was recently treated by Harry Edwards in front of an audience of over 6,000 people, is by no means an exception. The young boy, who is a spastic, had to be carried onto the stage by assistants, and was asked to stand up and hold a piece of paper in his hands.

He could do neither. But after a few minutes of spinal massage from Edwards' healing hands, who also manipulated the boy's head backwards and forwards, there was a dramatic change. An audible gasp arose from the audience as the boy slowly got to his feet when asked to do so. An ecstatic smile spread across the youngster's face as he took a few, shaky steps around the stage, and grasped the piece of paper held out to him.

The boy's mother, Mrs. Phyllis Cowell, later said that doctors had told her that her son would have to be completely re-educated to walk. She also said that the piece of paper which the boy held was the first thing he has been able to grasp since he contracted the illness, despite long series of manipulative therapy and treatment. Furthermore, his spine seemed to be much stronger, and he appeared to have gained control over muscles that he had long ago forgotten how to use. Mrs. Cowell was convinced that after

another meeting with Harry Edwards, her son would be almost normal once again.

Together with his colleagues, Harry Edwards is prepared to try his curative powers on all sorts of ailments and malformations. They have dealt with the deaf, dumb and blind, people who have lost their sense of smell, spastics, arthritic sufferers, and people with blood and bone diseases. But perhaps the most wonderful aspect of their work lies in the fact that they have effected cures in people who have been otherwise classed as "incurable."

Whenever he is questioned about his uncanny powers of healing, Harry Edwards has no hesitation in saying that he doesn't know *how* these powers take effect or where they come from. "The important thing," he says, "is the fact that they *do* work." He has often described spiritual healing as "a continuation of the work which The Master commenced," and says he believes it should be carried out in all parish churches as well as in diocesan cathedrals.

The fact that the British Medical Association is allowing faith healers into national hospitals is evidence enough that these men have special powers. But far more important is the fact that thousands of people will be given the chance of a new lease of life through their healing hands and faith.—(*The Hindu Weekly*, 24-7-1960).

BLOOD SEDIMENTATION RATE (E.S.R.)

The Value and Importance of this Test in the Treatment of Diseases

If a specimen of blood is mixed with something that prevents clotting and is then allowed to stand in a special graduated tube, the red blood cells sink down the tube while the plasma, remains clear above. The longer the tube is left the greater the sedimentation, but in practice the result is taken at the end of an hour. This is called the blood sedimentation rate, or more familiarly the E.S.R. Red blood cells are called erythrocytes and E.S.R. is short for Erythrocyte Sedimentation Rate.

The E.S.R. is reasonably constant in healthy people. It is slightly greater in women than in men, and is a little increased at the menstrual periods. It is more increased in pregnancy, but should have returned to normal within a month after the baby is born.

Apart from pregnancy an increased E.S.R. means that there is something wrong. By way of contrast, a normal E.S.R. does not necessarily mean that all is well. It is rarely increased, for instance, when the heart is failing.

The sedimentation of red cells is increased in feverish conditions, also after inoculations, operations, and fractures, and in cancer.

The main use of this test is to indicate the seriousness of a disease and its progress, whether it is getting worse, or whether the patient is recovering. It is also a great help if the doctor is undecided whether a patient has a real disease or is just imagining things. If the rate is raised, something is genuinely wrong.

The E.S.R. is probably of most use in cases of rheumatic fever, or rheumatism. In the early stages the sedimentation rate is much increased. As the patient begins to recover the rate lessens and after all pain, all fever, and all joint swellings have vanished, the one guiding sign left to the doctor is the E.S.R. Until it has returned to normal the patient has not fully recovered, though he may be able to knock about and even work if he takes things gently.

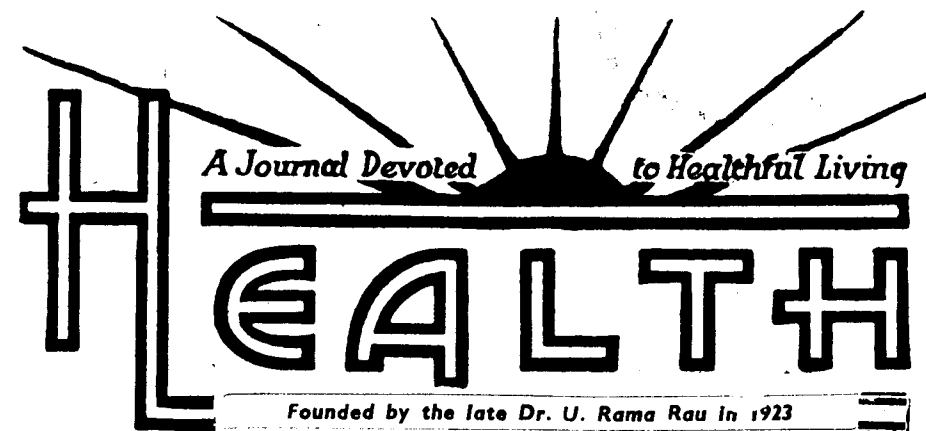
The same is true of tuberculosis, but here the doctor has other guides and tests to help him.

It must be stressed that the E.S.R. does not indicate the cause of the disease. Properly used it can be a great help to the doctor and, when the rate is falling, a great comfort to the patient.—(F.D., June 1960).

What is a Slum?

A group of mud-walled huts is not necessarily a slum. It is overcrowding and insanitation that defines a slum, which may as well consist of three-storey buildings as of mud huts.

If slum-dwellers were made owners either of the plots or the tenements that might be put up, it would not be long before these passed into the hands of "land shares" waiting to buy them and slum-dwellers would continue to be slum dwellers!



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SCHOOL HEALTH PROGRAMME

(Expansion in Third Five-Year Plan)

THE outstanding features of the School Health Programme recommended by the School Health Committee and, we believe, since approved by the Planning Commission for inclusion in the Third Five-Year Plan envisage among other things the provision of mid-day meals for all school children and periodical medical inspection for them, in schools. It is gathered that the mid-day meal scheme will entail an expenditure of Rs. 144 crores half of which should be provided by the Union Government from the allocation for Ministries of Food and Agriculture, Community-Development and Co-operation, Education and Health, in equal proportion. The balance should be collected from parents, the community, local bodies, volun-

tary organizations and State Governments.

The Committee estimates that the expenditure on the school-health programme in community-development blocks would be about Rs 12.47 crores during the Third Plan period, and that fifty per cent of this might be provided by the Union Government. The mid-day meal, in the Committee's opinion, would supply about one-third of the total requirements of calories, proteins, vitamins and calcium deficient in the home diet. The meal should consist, in our opinion, of locally available nutritious food. Wherever possible, milk should be included. Primary school children should be given priority.

It is very important that the vulnerability to malnutrition of

children between one and five years, during the pre-school period of their lives, should be specially taken into account in assessing nutritional needs. Particularly great protection should be given to them even more than to the school-going group.

We are in entire agreement with the Committee's view that all social organizations should be utilized for distribution of milk and other nutritious food and that a limited distribution of skimmed milk in community-development blocks should be undertaken with the provision of Rs. 10 crores in the Third Five Year Plan for this purpose.

We are glad to note that the Committee has recommended a thorough medical examination of all children when they enter primary schools and again four years later. Where facilities exist the examination should be more frequent. Once a year, if possible, would be ideal in every respect. The most important thing is that parents should be present during medical examinations so that they could

take a greater interest in the correction of defects. It is our firm belief that unless the parents evince an active and abiding interest in the periodical health assay of their children at school, the system of school medical inspection will not confer maximum benefit on the children. The mere detection of deficiencies and ailments and defects in vision, dentition, breathing etc., will not take the children very far, unless the parents are made to co-operate intelligently in the follow-up programme and to report the remedial measures they adopt to the school medical authorities from time to time.

The educational authorities of the school should provide to the poorer children found to be having visual, dental and nutritional defects, adequate remedies by way of glasses, dental attention and nutritional supplements free. We believe that the Third Plan will find the necessary allotments for this aspect of health-promotion among school children, who constitute the wealth of the nation.

Interpreting Medicine to the Layman

Today people have a tremendous desire for medical information and too often their doctors cannot find time in their busy days to supply this need. Often when a doctor tries to supply it, he uses long words which the patient does not understand. Doctors will do well to cultivate a simple rather than a highly technical form of speech. It can make for a greater success in practice; patients will be pleased and satisfied and will cooperate better. Good medical writing for the lay people is much needed. It should preferably be done by physicians. If people are to feel more kindly toward the medical profession, the report of the doctors must be absolutely honest, with many confessions of ignorance.—(Dr. Walter C. Alvarez M.D. of Chicago in *New York State Journal of Medicine*, 1-5-1960).

THE CARE OF CHILDREN'S EYES

By HENRY HOBBS, F.R.C.S., D.O.,

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(Continued from July 1960 issue of 'Health')

II

SQUINT most commonly arises during the early years of life although it may be present at birth. Its causes are many, but the operation of all of them may be most readily understood as forming obstacles to the normal development of the nervous mechanism which enables the separate images of the two eyes to be superimposed, fused and finally combined into a stereoscopic whole. Thus the aimless, dissociated movements of the infant eyes at birth come, usually within the first year of life, to be controlled and redirection of the gaze becomes binocular. Obstacles to binocularity are usually classified as sensory, motor and central, and the type of obstacle present in any given case to a large extent determines the treatment needed. Sensory obstacles are those which prevent the eye receiving, forming or appreciating a clear image: reception being interrupted by opacities such as corneal scars or cataracts, formation by optical defects and appreciation by disease of the retina or the nervous pathways which convey the nerve impulses generated there to the brain. Motor obstacles, on the other hand, act by directly preventing

an eye from moving into a position corresponding to that of its fellow. Paralysis or mal-development of a muscle acts in this way as a primary motor obstacle and when, through sensory defect, an eye has deviated for sometimes, changes in the muscles take place which make of them secondary causes in the maintenance of the squint. Disease in the orbit which affects the muscles may also produce a squint in this way. Sometimes no such abnormalities are present and it is apparent that the cause lies within the brain itself.

The treatment of a squint depends upon its cause and, hence, thorough medical examination of the eyes forms its basis. When the primary cause is apparent at once its removal naturally forms the first object of treatment; but during examination other contributory causes commonly come to light. Among these the most important is the optical state of the eye and, since this varies rapidly and markedly from the action of the focusing muscles within the eye, it is essential that these are temporarily paralysed by a drug if an accurate estimate of the refraction of the eye is to be obtained. This is of great importance because focusing of the eye from far to near objects is always associated with their convergence, and in one type of squint it is simply the excessive effort of focusing (or accommodation) which leads to over-convergence and produces the squint. Glasses alone, if they reduce the accommodative effort sufficiently, may cure such squints. Accommodative squint

forms only a small proportion of those seen in a hospital eye clinic; but the over-convergence which results from the need for excessive accommodation plays a significant part in the maintenance of many squints due primarily to other causes and, hence, glasses are necessary in their treatment.

When the vision of the two eyes is not co-ordinated the child may either use them alternately, if they are of more or less equal acuity; or, if one eye has, for one of the reasons already discussed, better vision than the other, it may choose to rely constantly upon this for accurate vision. The eye with less clear vision tends then to deviate constantly and the image formed on its retina must be constantly neglected by the brain in favour of the clear image of the fixing eye. In time this "neglect" becomes habitual and the eye incapable of clear vision even when the obstacle to it is removed, and it is said to be "amblyopic." Such amblyopia of itself perpetuates the squint and treatment must be directed to discourage and, if possible, to abolish it—sometimes by occluding the good eye, sometimes by stimulating the squinting eye. This stimulation of the squinting eye calls for special apparatus and is usually undertaken by an orthoptist working in association with the ophthalmic surgeon. The improvement in vision which it is capable of producing, whilst it sometimes enables the child to control the squint permanently, is commonly temporary and is, therefore, most valuable

when the exercises are given as a prelude to operation.

Operation is necessary in a large number of cases. Where a primary motor obstacle is present it is likely to be needed early, and even where the squint arises from other causes, operation is essential to cure the condition in a large proportion of cases.

It will be evident, therefore, that the earlier the squint is detected and medical advice sought, the greater is the chance of complete cure and the simpler is the necessary treatment likely to be.

Refractive errors.—These optical imperfections of the eye act by making it impossible or difficult for the optical mechanism of the eye to produce upon the retina clear images of objects seen, in much the same way as an ill-focused camera results in blurring of the photographic image. In myopia (short-sightedness) the focus of the eye is "set" for near objects only, and no effort can produce constant clear images of distant ones. In hypermetropia (sometimes illogically referred to as "long-sightedness"), on the other hand, vision is blurred for all distances unless the muscles of accommodation are capable of the effort of compensating the defect. Astigmatism produces its effects in a different way because, instead of the abnormality being a simple one of optical power, it is an irregularity of the optical mechanism which results in distortion of the image cast upon the retina. This also results in blurred images at all distances of vision

unless it can be compensated by a correspondingly irregular action of the focusing muscles.

The effects of such errors of refraction in reducing visual acuity and encouraging squint have already been mentioned; but it must be realized, too, that when clear vision is achieved at the cost of excessive or irregular accommodative action discomfort is apt to result. This is sometimes felt in the eyes themselves, sometimes it is manifest as headache, and at others it is an ill-defined pain associated with periodic blurring of vision as the focusing effort is abandoned. Spectacles may be helpful in all of these circumstances, and the constancy with which they should be worn depends to a large extent upon the degree of the refractive error and the size of the detail to be viewed. A child with a low error of refraction may be adequately and comfortably served by a pair of glasses worn only for such tasks as school work, reading and television; whereas if the error is high enough to reduce vision for distant objects, they may be necessary also for games, cycling etc., or have to be worn constantly. Although it is true that the more constantly these aids to vision are used the more indispensable they become, the desire to do without glasses, either on the part of the child or its parents, should never be allowed to impose upon the child a visual handicap which may

limit its educability or expose it to the dangers in which reduced vision involves it.

Disease of the eyes.—Ocular disease is sometimes manifest as external abnormality, as in the red eyes of conjunctivitis or iritis, as pain or as defective vision. Diagnosis of the cause of suspected abnormalities is always a matter for specialist examination, and when a doubt arises this should be sought at the earliest opportunity.

Injuries.—The eye is well protected by the conformation of the orbit, and, considering the hazards to which it is generally exposed in childhood, serious injuries are few. Nevertheless, the effects of any injury are almost incalculable and when any doubt of ocular damage exists expert advice should be sought as soon as possible. Foreign bodies which cannot be removed by a pledget of cotton-wool or by drawing the upper lid down over the lower call for skilled attention, so that corneal ulceration may not result, and any suggestion of perforation of the eye by a sharp object should, of course, be treated as an emergency. Blurred vision or manifest hæmorrhage on the eye itself after a blow also indicates a need for further advice, for disturbances of the delicate intraocular structures which give rise to little immediate distress are often followed by serious permanent consequences to vision.—(*Health Horizon*, Spring 1960).

NEW VISTAS IN EYE SURGERY

Bold and imaginative techniques are helping to preserve our precious gift of sight.

By ROBERT O'BRIEN

Spot-welding a detached retina.—Of all eye tissue the retina is the most delicate. It can never be replaced, for it is actually an extension of brain tissue. The function of the retina is to register images on its sensitive nerve endings and transmit them along the optic nerve to the brain, where they are converted into sensations of sight.

Less than 50 years ago detachment of the retina, often brought on by falls or blows, almost inevitably led to blindness. Even today thousands of people lose their sight because of it, and many others undergo complicated retinal-detachment surgery every year.

A detachment usually starts as a minute rip in the retinal tissue. The victim may see a swarm of black specks, tiny flickering lights or quivering pulses of light. If the condition is not treated immediately, vitreous fluid may seep through and get behind the retina, forcing a section to peel loose. This makes a blind spot and, though the victim sees, part of what he sees is blotted out. Eventually, more fluid may seep through the rip until the whole retina is loose.

Today eye specialists command an amazing new tool for sealing holes in the retina before they become advanced—the Meyer-Schwickerath light coagulator, developed in Germany. It shoots a brilliant beam through the pupil of the eye. The eye's own lens focuses it on the retina, and in a second or two the concentrated beam painlessly spot-welds the hole.

Vitreous implant.—Another remarkable technique injects donor vitreous into the eye chamber of the advanced detachment victim after sealing the retinal hole. The injected vitreous presses the loose retina back against the choroid, just as pumping air into a football presses the bladder back against the leather. In a gratifying percentage of cases the retina is reattached and remains securely in place. This delicate operation, called vitreous implant, is restoring sight to eyes that had been written off as hopeless.

Dr. John Harry King, an American eye surgeon, has contributed to vitreous-implant surgery a process that reduces vitreous to a powder. Removed from a donor eye, fresh vitreous is freeze-dried, then dehydrated in a vacuum machine. This yellowish dust can be stored, transported without refrigeration and, when needed, reconstituted into its natural state by simply mixing it with distilled water or saline solution—for all practical purposes, "instant" vitreous!

Cat corneas for human eyes.—Normally the human body cannot tolerate tissue grafts from animals. But last year,

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in an operation known medically as a heterograft, Dr. King successfully grafted corneas—the transparent, five-layer tissues which protect the front of the eyes—from cats to the eyes of two voluntary patients whose own corneas were being destroyed by disease. The cat corneas saved the patients' sight.

These grafts, admittedly, were radical experiments, performed in the hope that some day animal tissues may contribute to man's struggle against blindness.

Dr. King's research programme has also developed a process to dehydrate human corneas for partial-thickness grafts of corneal tissue.

The problem is that fresh corneas must be stored under refrigeration, and for no longer than 72 hours. Dr. King's dehydrated corneas can be kept indefinitely—in glass vacuum tubes at room temperature—and sent anywhere. They can be rehydrated and ready for grafting in 15 minutes.

Dehydrated corneas, Dr. King believes, will save many human beings from unnecessary blindness. There remains, of course, a desperate need for human-donor eyes. Pitifully few can be spared for experiment or preserved for future emergencies.

New help for cataract victims.—Cataracts are the greatest single cause of blindness. A chemical named *alpha-chymotrypsin*—an enzyme produced by the pancreas of cattle—is now making this operation simpler,

safer and more generally available.

A cataract, a clouding of the small, crystalline lens at the front of the eye, is like frost on a window-pane. When it obscures the lens entirely, images cannot pass through to the retina.

The only effective treatment is to remove the cataractous lens, the patient later wearing an eyeglass or contact lens as a substitute. But cataract surgery has always been complicated by tiny ligaments, called zonules, which hold the lens in place. Because the zonules are deeply embedded in surrounding tissue, the surgeon could not sever them with a sharp instrument without endangering the eye. Consequently, he usually broke them by force or traction.

This was relatively simple when the patient was elderly and the zonules were brittle. But in the young they are tough and elastic. If he forced them, the surgeon risked a ruptured lens or other serious injury.

Usually total removal of the cataract could not be performed until the patient reached middle age. Meanwhile, the eye was useless.

In 1957 Dr. Joaquin Barraquer, a Spanish eye specialist, treating a blood clot behind a patient's lens, used *alpha-chymotrypsin*. To his astonishment the lens came loose; the chemical had cut through the zonules. No other vital tissues seemed to be affected.

For cataract sufferers this discovery was momentous.

Now, instead of forcing the lens free, the eye surgeon can wash the chemical across the cataractous lens and back under the iris—the coloured portion of the eye. In a few moments the lens is loose and can be removed with a suction device or forceps. As a result, cataract surgery can now be performed with every hope of success, also on patients under middle age.

Making glaucoma surgery safer.—Even more dramatic is the extraordinary success of another chemical, a crystalline substance called *urea*, which is eliminating the hazards of emergency operations for glaucoma. This disease ranks second only to cataracts as a destroyer of sight.

In the healthy eye, a thin watery substance, aqueous humour, constantly flows in and out of a narrow angle between the iris and the cornea. But if a structural or physiological defect or other obstacle blocks the outflow, aqueous humour stores up within the eyeball. Pressure mounts inside the eye, and the eyeball hardens.

When this condition builds up slowly over a period of years, it is chronic glaucoma. If diagnosed early, it can usually be controlled by treatment. But when it strikes suddenly, without warning and with an exploding pain in the eyeball, it is acute glaucoma. The pressure must be relieved at once. If medical treatment has no effect, immediate surgery is often demanded.

The operation may be fraught with peril. Blood-vessels may

break. The pent-up pressure may literally blow the lens against the instruments and cause a cataract; the iris may be blown from the eye. Yet the surgeon has no choice. He *must* operate, or vision is lost.

Less than a year ago research came to his assistance with *urea*. This common and inexpensive chemical removes the emergency factor as if by magic. Administered in solution intravenously, it draws the excess fluid away from the eye-ball and into the blood stream. The pressure drops within an hour. The blazing pain subsides. Most important of all, the surgeon can now perform the operation under relatively safe conditions.

How was this discovered? Dr. Miles Galin, of the Ophthalmology staff of Cornell University Medical College, was struck by *urea*'s capacity to reduce the pressure of spinal fluid. He tried it on acute glaucoma victims and it worked.

"Urea has virtually eliminated the risks associated with acute-angle-closure glaucoma," Dr. Galin says, "It's saving eyes—and much human suffering."

Dr. Castroviejo's razor.—A most, transparent membrane, the conjunctiva, lines the eyelids and covers the front of the eyeball. If this tissue is badly scarred by infection, chemical burn or other injury, it may have to be replaced. Eye surgeons peel off the scarred conjunctiva and graft in its place a tiny patch of healthy tissue. Mucous membrane from the

inside of the lower lip makes ideal grafting material.

But the patch must be cut evenly and paper-thin with forceps and scissors—a tricky procedure for even the most skilful surgeon.

Dr. Ramon Castroviejo, a noted eye specialist, has invented a tool which does the delicate job quickly and efficiently.

This little instrument is fitted with a small, double-edged razor blade. A rotary electric motor, suggested by that of an electric razor, actuates the blade. The surgeon can adjust it, like a small electric plane, to shave from a lower lip a layer of mucous membrane only 1/4000th of an inch thick.—(*Farm Journal* via *Reader's Digest*, July 1960).

EXERCISE FOR THE ELDERLY

Whatever our age, exercise is essential; but for the elderly especially, it must be wisely planned

S. B. WHITEHEAD, D.Sc., London.

INCREASING age and reduced activity are all too often held to be complementary, and as retirement age comes round, we hear increasingly: "Oh, I am getting too old for that"—when the subject of exercise is brought up.

But the elderly need exercise as much as the young. They still have muscles to be kept in condition, vital organs that need exercise to be kept in good tone, nerves that need the stimulus of alternate tension and relaxation, joints to be kept limber and free, and a circulation to be maintained from head to foot.

It is simply that the emphasis need to be shifted.

Just what form of exercise the elderly should take and to what extent, depends not so much upon their temporal age as upon their biological, and the kind of life they have lived. Obviously, those who have led active outdoor lives, or who have

regularly played games, will have little difficulty in continuing activities to which their bodies have become accustomed. Their chief need is to know when to stop—before fatigue sets in. But a greater number of the elderly belong to those who have led sedentary lives, and now find it increasingly difficult to sustain physical activities, although they may have leisure for it.

Advantage of life-long activity.—Generally speaking, those who have been active all their lives are in better physical or biological condition to exercise, than their more sedentary fellows, since heart, lungs, muscles, and nerves are conditioned to stand up to physical action without being strained.

Whether your life has been active or sedentary, it is wise in your lengthening years to make it a cardinal rule to exercise well within your recuperative capacity—in other words, avoid over-

strain. Never pursue exercise to the point of fatigue. This means that highly strenuous activity and competitive games, which heighten the strain on the nerves and vital organs should be avoided.

Inactivity often brings stiffness, and lack of exercise may bring shortening tendons, cramped fingers, stiff joints, and bent postures, and it is not easy at first to re-educate elderly bodies to enjoy physical exercise again. Yet the effort is worth while. One of the best times to begin loosening up the body is in the morning on wakening, with simple stretching and relaxing exercises.

A simple schedule.—(1) Lie flat on the back, and stretch each limb to a corner of the bed; breathing in as fully as possible, hold your breath a moment at full stretch, spread-eagled; relax, and breathe out. Repeat five to ten times.

(2) Lie flat with arms at your sides; inhale and lift arms straight up to the vertical, hold a moment; then exhale, and let your arms relax to the side at right angles to your body; then reverse the movement. Repeat five to ten times. This strengthens your chest muscles and lungs.

(3) Still lying flat, bring up the right knee and bend it into your chest, inhaling, straighten the leg vertically, and lower as slowly as you can as you exhale. Repeat with the left leg; about five times each. This will help to tone your abdomen.

(4) From the same flat position, with arms outstretched in line with the shoulders, swing the left arm up and over to lay on top of the right, at the same time twisting through your middle; and stretch; relax slowly back, and exhale, and then repeat with right arm over to the left; repeat each side five times.

(5) Now on your feet, standing upright, with a chair on one side to steady you; swing the opposite leg forward, sideways, and backward and recover to floor in a single fluid movement, keeping relaxed, and repeat five times. Change the chair over, and repeat with the other leg. The whole purpose is to open up the groin area and give a mild stimulus to the gonad glands.

(6) Standing erect, put your hands clasped behind your neck, elbows out; bend slowly forward at the waist, and then turn at the waist as far right, then as far left as you can, and back to centre and straighten. Repeat five times.

Relaxed movements essential.—Joints should be freed by simple relaxed movements. For instance, practise rolling your head fully relaxed, slowly round about ten times, each way; and increase as you feel you can. Sit on the edge of the bed, and shake your hands from the wrists loosely up and down for a minute, then turn them round one another. Flex fingers by bending each one inward and straighten it again with your hands flat on your thighs. Stretch your foot out and shake it and rotate it

loosely at the ankle, first the right and then the left.

All these movements are devised to enliven physiological activity and tone the muscles and nerves. They should not be done beyond the point of incipient fatigue, and between each movement there should be relaxation. Any of them can be done during the day with advantage. Of general exercise out of doors, walking is excellent, since it brings the maximum of muscles into use, and can be taken at a pace to suit the walker. Whether you should cycle, go horse-riding or swimming depends largely on your former ways of active living. To take them up as new diversions is risky, unless you are prepared to begin with the smallest doses under the most favourable conditions. For instance, although swimming is ideal for bringing all the muscles of the body into play, it will not help you much if your system reacts badly to

the shock of entering the water.

Don't overdo it.—Gardening is a favourite pursuit of many, and is both mentally and physically stimulating, and often contenting to the emotions. Nevertheless, the tendency to do too much, especially stooping, must be resisted.

Many elderly people still find enjoyment in games such as golf, tennis, bowls, and croquet. There is no reason why these should not be kept up, provided play is for enjoyment rather than competitive ends. Apart from the emotional stress of playing to-win, there is always some danger of imposing overstrain on some of the muscles when trying to retrieve a difficult situation. The essence of exercising for well-being is that it should be well within one's physical capacity, and result in ready relaxation afterward, and a build-up in bodily tone and condition.—(*Good Health*, July-August, 1960).

Old Age

The proportion of old people in the populations of Europe is growing steadily more important. A survey of 15 countries has shown that in 1951 for every 1,000 people of working age, there were 147 who were more than 65 years old. In 1971, the average figure is expected to reach 190. People are no longer dying so much from the infectious diseases which medical science has largely defeated. They live longer and tend in later life to suffer from chronic ailments, which are taking on ever greater importance as public health problems. Moreover, the ageing of the population creates serious social and mental health problems. An advisory group convened in Oslo by WHO's Regional Office for Europe on the Public Health Aspects of the Ageing of the Population, has recommended measures to promote the health and well-being of elderly citizens.—(*Journal R.I.P.H. & H.*, April 1960).

Cigarettes and Cancer

An inquiry into '*Smoking and Personality*' (B.M.J., May 14, 1960, p. 1456) suggests that pipe smokers and cigarette smokers have distinct inborn 'make-ups' and that the tendency to heavy cigarette smoking and to pulmonary carcinoma are simultaneous birth presents.

How to Write a Letter of Condolence

(Helpful advice on a painful duty)

JANET KERN, *London*

FEW duties are more genuinely difficult than to write a letter of condolence. Recently, after my mother's death, I was receiving numerous condolences. What I then learnt may help others.

First, the proper purpose of a letter of sympathy is not so much to honour the dead as to help the living. Your aim, should be to recall past joy and not to heap coals on the fire of sorrow. So, write about the life of the departed not about the death. Write in terms of the momentarily forgotten blessing, not the already over-emphasized tragedy.

Any bereaved individual could at random produce this typical note: "What a great loss this has been to you. I am filled with thoughts of your tragedy." How much wiser was the friend who wrote to me: "I shall remember your mother's gaiety, friendliness and fine spirit. They don't come like her very often. Both you and your father were greatly blessed."

Remember that a few comforting words are more welcome than pages of empty verbiage. Always try to recall and sustain happy memories. Every recollection of my mother alive, helped me. It did me immense good to get a letter from a casual

shop girl acquaintance who wrote about her "charm and serene quietness. Although I saw her only on that one occasion when she came shopping with you, I shall always remember her." What a wonderful, living image of Mother came to mind upon reading that.

For some reason many people consider a letter of condolence an obligation to preach a sermon to the already suffering recipient. It is well to remember that your personal credo may be at variance with what the grief-stricken person himself believes and finds comforting.

In the name of compassion, don't subject a bereaved person to high-sounding cliches such as "Time heals." He won't believe it; he will believe simply that you don't realize the depth of his sorrow. "After a while you'll forget" is equally painful. The last thing in the world one wants is to forget. Above all, refrain from indulging in that most arrogant of all condolence cliches, "He would have wanted you to...." Advice is not consolation.

If you haven't said it within a month, don't say it. During the days immediately following the shock of loss, there is solace and therapy in the flood of condolence letters. But there comes a time when the bereaved must take up normal routine and they don't want to be forced to hark back. They are still in need of consolation—but offer it in person rather than by post, and tacitly, by companionship, rather in words.

It will not hurt to study models in our quest to make

more helpful such letters and notes as we must write. I recommend a letter written by Harold Laski, leading British Socialist, to U.S. Supreme Court Justice Oliver Wendell Holmes on the death of Mrs. Holmes in 1929.

"You know how big a space you both have filled in our hearts," he wrote. "She had, with all her reserve and reti-

cence, a genius for affection. And to see you together was a lesson in the beauty of love. I know that things can never be the same for you again. But I want you to remember that your house was made by her, for me as for others, a place of loving pilgrimage, and that while we live she will be remembered with deep affection."—(*Guidedpost*).

WHY DO GOOD PEOPLE SUFFER?

By Dr. ROBERT YOUNGS,
Presbyterian Minister

WE are ever baffled by the injustice of the moral world. "Why?" is the most timeless and universal of all questions, as old as the first tear and as recent as the latest news-cast. We can see a reason for scoundrels dying young, but why the untimely death of saints? We can justify a criminal's being stricken with disease, but why little children? We can accept adversity in the life of an infidel, but why in the life of the faithful?

The Bible (and in fact every sacred scripture of every religion in the world) gives us answers to these questions.

For one thing, these books remind us that good people sometimes suffer because God through nature can be no respecter of persons. ("He maketh His sun to rise on the evil and on the good, and sendeth rain on the just and the unjust.") This is a world of law and order, where all people are subject to cause and

effect regardless of their virtue or lack of it.

Good people are just as susceptible as bad people when they are exposed to contagious diseases. They strike the ground just as forcibly as wicked people when they slip and fall. The world would be an unscientific and unpredictable place in which to live if it were not like this.

For the sake of an orderly world, good people have to live under the same conditions as wicked people, except that good people have a faith and fortitude which make them masters of fate and of adversity.

Then, too, the Bible shows us that good people sometimes suffer because they do not temper goodness with other necessary qualities in life. ("Be ye therefore wise as serpents, and harmless as doves.") In His parable of the dishonest steward, Jesus was suggesting to his followers that they might suffer less if they had foresight as well as

faith, realism as well as idealism, and industriousness as well as spirituality. We can be as good as gold, and yet suffer poverty if we do not work and save. Very often, good people suffer because they have no prudence to go with their prayers.

Furthermore, the Scriptures reveal repeatedly that good people suffer because suffering is one of the best ways that God has of bringing out the best in life. Consider how the Apostle Paul, suffering the infirmities of his flesh, found that when he was weak, then he was strong. Such god-like qualities as love, patience, pity and compassion are called forth in us by suffering. Without suffering, life would be mechanistic and animal-like, not god-like. A life that knows at least a little suffering never grows complacent.

And, most important of all, suffering is God's way of improving the world. If no one but wicked people suffered, we would harden our hearts and say, "They deserved it"; but when saints suffer, we cry, "This must not be." Nothing moves us more to contribute generously to the

cure of cancer than what cancer does to the noblest people. Our world has evolved from chaos, savagery and imperfection towards some final realization. The suffering of good people has ever been a prime factor in motivating its rise. It takes Edith Cavell before a firing squad, Joan of Arc at the stake, millions crippled with arthritis, confined with tuberculosis, paralysed with palsy before we really attack these enemies of life with our money, our brains and our blood.

With consummate understanding and skill, one nineteenth-century clergyman wrote of suffering: "What pains and tears the slightest steps of man's progress have cost! Every hairbreadth forward has been in the agony of some soul, and humanity has reached blessing after blessing of all its vast achievement of good, with bleeding feet."

[Lord Krishna's advice to Arjuna embodied in the Baghavat Githa contains these and many more solutions to life's problems in their varied and tangled aspects.]—Ed. HEALTH].

—(Adapted from *Reader's Digest*, July 1960).

True Friendship: a Rarity

To be everybody's friend is to be nobody's friend. For friendship is the feeling you possess for a particular person as distinct from all other people. It is a very beautiful and intimate and close relationship which is destroyed if it is bestowed casually. To be able to say that you have a friend is to know that there is one person to whom your affairs are as important as his own, on whose aid and counsel and affection you can count in all times of trouble and distress, to whose aid you will fly the moment you hear he needs your help.

It is impossible for any man or woman to feel like that for more than a few people.—(St. John Ervine in *The Irish Digest*).

Growing Old—Sensibly

JOSEPH KRIMSKY, M.D., F.A.C.S.,
Chief, EENT Department, Veterans
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Huntington, W. Va.

WE hear more and more of the large and increasing proportion of the aged in our midst, thanks to the greater effectiveness of medical skill and the wider application of public health measures. It has been estimated that in the next quarter-century the number of men and women over age 65 will have reached 25 million. The emphasis in medicine will be more and more on the degenerative ailments associated with senility, natural or premature. The notable scientific triumphs in the past have been on the battlefield against germs and viruses. Our gravest concern today and tomorrow is with hearts, kidneys, blood-pressure, neuroses, psychoses and (our number one problem) cancer. These are predominantly diseases of the aging and the aged.

Something more than drugs and surgery is needed here. A philosophy of living is the good medicine for the prevention, the alleviation and, if possible, the cure of these growing ills. Such a philosophy cannot be acquired suddenly, as one receives a birthday gift. It is a way of life that has to grow and mature with the years. Its roots are in the earliest days and in the first steps of character and personality building. A faith in life is essential, and a love of life,

the greatest gift of Him who created us.

There must be a philosophic acceptance of life's fortunes and misfortunes, life's values, life's illusions and disillusion. There must be thankfulness for blessings received, thankfulness for the work of our hands and the fruit of our minds. Above all there must be patient resignation, calm and tranquil, to the inevitable decline of powers and faculties. There must be the will and the cultivated competence to use in fullest measure those functions and capacities which neither wither nor tarnish (as others do) with advancing age. Every day should be a preparation for a better and more contented tomorrow. That spells hope and confidence and joy in what is and what is yet to come—at any age.

It is written somewhere: "Man was sent upon the earth not merely to prepare himself for existence in another world; he was sent upon the earth that he might beautify it as a dwelling, and subdue it to his use; that he might exalt his intellectual and moral powers until he had attained perfection, and had raised himself to that ideal which he now expresses by the name of God, but which, however sublime it may appear to our weak and imperfect minds is far below the splendour and majesty of that power by whom the universe was made." So that when the day of departure approaches, opening a door to secret and hidden passages, we shall know that though we can carry nothing away, we have added measurably to the heri-

tage of truth, goodness and beauty which we have received from the ages.

How blessed in their ripe years are those who have religion for a friend and comforter who have faith—the substance of things hoped for, the evidence of things not seen! The belief in immortality, in some form of after-life, truly is an anodyne for the aged, as well as for all who watch the passing of the years. It assuages the sorrow and grief for those who have gone, leaving emptiness and shadowy memories behind. Its religious significance is supreme, and it sustains and soothes those suffering pain and the enfeeblement of illness. Man is in need of such sustenance and solace; the terror of being alone and forsaken in sickness and old age has haunted men's minds since primordial time. We hear the voice of Dante as he approached the end of life's journey: "In this age the noble soul tenders itself unto God and awaits the end of this life; and to itself it seems that it goes out from the inn to return to the Father's mansion; to itself it seems to have come to the end of a long journey, and to have reached the city; to itself it seems to have crossed the wide sea and to have returned to port."

For those who have grown old without such faith it is indeed sad, if they have not fortified their souls with a philosophy to fill the religious void—a philosophy of composure, equanimity, serenity and the recognition of

a supreme wisdom in the events of nature and the cycles of life. The young years must be a preparation, an education, for growing old wisely and graciously. It is in the years of growth towards maturity that we lay the foundations for the kind of old age we shall enjoy, or suffer. Parents can and should be a great help in those trying and challenging years. The school and the church have their important parts to play. But—here the doctor reveals himself—the wise physician may be an invaluable friend, confidant and counsellor. He must be philosopher as well as doctor. And he must be accompanied by faith as well as science as he walks his rounds of sickness and uses the art as well as the knowledge of his profession. *For the roots of illness lie deep in the frustration, the tension, the stress and the maladjustment of our mechanized age.*

The wise physician must study and observe the ailments of society as well as those of his individual patient. He must be concerned primarily with prophylaxis, the prevention of that corrosion and erosion of body and mind which, if not avoided or ameliorated, lead to that decline and degeneration which is the dread spectre of millions who are growing old, often before their time. The health and well-being of the community reflects, and is reflected in, the moral, physical, intellectual and emotional health of its individual members. The good doctor must have the vision of wholeness in treating the patient who has

such-and-such a disease. Older persons particularly must be seen in the context of their background, their personality patterns, their fixations, their pre-occupations and their interests. The will to live, today and tomorrow, must not be permitted to dissolve in the vistas of yesterday. The mind that is alert to current interests and to future outlooks, not for self alone but for the community and the nation, will find restoration, rejuvenation and admiration in the company of the young.

The ancient philosopher-statesman, Cicero, declared: "For as I like a young man in whom there is something of the old, so I like an old man in whom there is something of the young;

and he who follows this maxim, in body will possibly be an old man, but he will never be an old man in mind." To remain young in mind and spirit can be a reality to all who, while growing old in years, continue to keep in touch with life in all its aspects and interests. Our trouble today is that the focus of our vision grows ever sharper and ever narrower. Our special activities consume us and use us up. We must cultivate a wider field of vision in our sense of values. And when old age overtakes us it will find that our light is not extinguished but, rather, diffused, from a narrow burning point of intense special activity to a wide sphere of cultural participation. —(*West Virg. Med. Jour.*, 55:2, 1959).

Joseph Pulitzer: A Genius

An adventurous Hungarian youth of 17 turned up in London one day in 1864 and tried to enlist in the British Army. But a poor physique and faulty eyesight barred him; so Joseph Pulitzer journeyed on to Hamburg, where a recruiting agent paid him a bounty to join the Union forces in the American Civil War.

In America Pulitzer drifted to St. Louis after a brief war service and spent three years in menial jobs before he became a reporter on a German-language newspaper. There he found his *metier*. By his 24th birthday he was part-owner of the paper. For a pittance he bought another one, a bankrupt enterprise, and made a profit of £7,000 out of it.

With this capital Joseph Pulitzer was fully embarked on a meteoric career. He mastered English, the law and politics. He moved from German into English-language-publishing by merging two shaky dailies which he quickly built into the powerful *St. Louis Post Dispatch*. He later became one of the great moulders of American public opinion with his famous *New York World*.

Before he was 40 Pulitzer was a multi-millionaire. Then he was struck blind and his life became a wandering search for relief from this and other infirmities. He assembled an amazing secretariat from all over the world to act as his "eyes." The tormented titan bullied his aides and drove them to the limit of their powers; but he was a genius who, before he died in 1911, made the blueprints for two lasting evidences of his passion for "the high calling of literary skill." The School of Journalism of Columbia University and the Pulitzer prizes for merit in literature, journalism, drama and allied subjects stand as permanent memorials to an amazing career.

GETTING the WIND UP

Every young mother knows the value of getting rid of troublesome wind, and the expert baby and his well-trained mother always take it very calmly.....

A. P. NORMAN, M.D., F.R.C.P.,
London.

WHAT is this thing called wind? Air, one supposes, that distends a baby's stomach, and then comes out with quite a distinct pop.

Babies swallow air with their feed, and this collects in the stomach in the shape of a large bubble. You can see it in X-ray pictures of the stomach, and you can feel it with your hand on the baby's tummy. The bubble distends the stomach until the gas suddenly escapes up through the entrance of the stomach into the gullet and daylight. The entrance to the stomach is closed off by a sort of valve, which prevents food spilling out of it, and the gas bubble has to wait for this to relax, and allow it to escape as wind. A big bubble of wind may get itself trapped under the curve of the stomach and be unable to get out easily.

Blown-up tummy.—The blown-up, distended stomach is uncomfortable and as a result the baby is restless and unhappy and may scream with the pain. During these episodes or at the end of them the baby brings up wind. Winding the baby is taught as one of the important jobs of the young mother and the baby's loud burp after a feed is

one of the many triumphant events of the day.

Why do some babies get so much more upset by wind than others? Why does a stomach full of milk soothe a baby and a stomach full of wind upset a baby? Why does the wind come up without trouble in one baby and stay obstinately down in another? Some babies may swallow more air than others. Some babies may be more sensitive than others to the discomfort that wind can cause.

One factor is the failure of the valve muscle in the stomach to relax and allow the wind to escape. In older people it is well known that this happens in conditions of strain and nervousness. It is very often the jumpy, restless, nervy babies who suffer most from wind.

Even the competent, experienced mother who has had a couple of solid happy babies who have given no trouble from wind may find herself completely baffled by her next baby, a lively, touchy thing whose wind just won't come up and who seems to suffer from colic after almost every meal. Any but the most stodgy baby can easily be made nervy and tense by an anxious jumpy mother, whose movements are sudden and erratic and who is restless and never still.

Babies like and need, just as animals like, firm, gentle, purposeful handling. The mother whose first baby it is, never trained to handle babies and now landed with a precious squeaky creature, is bound to feel nervous. She shows this in her movements and the baby soon

reflects her nervousness. He becomes tense and has trouble with wind. Then there are all those who are naturally nervous and those whose movements are always jerky and sudden, or who are tired. Their babies are more than ordinarily liable to feeding troubles and wind.

Underfeeding may cause wind and colic, partly perhaps because of hunger, partly because the baby cries and cries and swallows air as it cries. A bottle-fed baby may swallow air because the hole in the teat is too small and in its efforts to extract the milk it swallows more air. Both these troubles are easily corrected once someone realizes what is happening.

What is the normal procedure for bringing up the wind? Sitting the baby up, everyone is agreed on that, or leaning it over your shoulder, are the first steps. No more is necessary, with the easy baby. He and you just stay put and think how pleasant life is and up comes the wind in its own reasonable time. If you feel more active an aimless walk round or a walk upstairs may produce a gentle jogging which helps. Fathers tend to prefer the latter alternatives.

Then there are the classical methods beloved of most mothers and all nurses. These are patting the baby on the back, and this may indeed help to shift the gas bubble so that it escapes. Another is rubbing the baby's

back which surely can't do any thing active, neither do any harm and both, if carried out gently, are pleasant occupation for the mother. The only trouble is that the nervous, the tired the awkward mother in a hurry bangs away at the baby's back rubs it in a frenzy and joggle him up and down, till his stomach muscle contracts and he cannot get the wind up if he wants to. When it does come as likely as not, some of his feed comes as well.

Gripe water and such other wind medicines are popular and quite harmless, but it is very doubtful if they actually work in the way they are supposed to! They do however give the worried mother a feeling that she is doing something and that may well help the baby.

The expert baby and his well trained mother take life calmly. They stop feeding after two to three ounces or just before half way, and see whether any wind comes up, before the stomach gets blown up and tight. Then they finish the feed and relax for a few minutes, with the baby comfortably upright and the mother gently letting off steam herself and soothing the baby by patting him rhythmically or rubbing his back, or quietly wandering about with the baby resting on her shoulder. This way they are both happy and relaxed. And what wind there may be is never a serious problem.—(*Family Doctor*, May 1960).

Safety First:

Precautions against Fires at Home

EVERY day there are over 1,000 fires in Britain. This week eight people will be burned to death, and ten times as many maimed for life. Fires can be prevented by commonsense and forethought.

In the kitchen:—Keep matches away from the cooker: to leave them on the plate-rack or on top of the stove is courting danger.

Equally dangerous is drying and airing clothes by placing them on the plate rack.

Do not leave a gas-oven door open when alight; it is the easiest way to catch a dress or apron on fire.

In living rooms fire-guards are a *must* wherever there are children or elderly people. Guards should be fitted to all heating appliances with open flames or radiants, and should be firmly fixed in position. This particularly applies to guards used on open fires, as a guard just placed in front of the grate can be moved by a young child or knocked to one side if someone falls against it.

Clothes should not be placed on a fire guard to air or be placed too near heating appliances. Likewise, curtains and other drapes should not be hung near fires and heaters.

When lighting or reviving a slow fire, do not use paper or cardboard to force a draught. Never use petrol or paraffin.

Keep the mantelpiece clear of articles which will attract young

children, and do not leave matches and lighters lying around.

Electrical fittings cause many fires every year. If flex becomes frayed, it should be replaced.

If oil heaters are used, follow the manufacturers' instructions most carefully, and keep the heater out of draughts.

Bedrooms:—Many of the fire dangers mentioned above also apply in the bedroom. Electric blankets should always be used absolutely flat, creases should be smoothed out, and on no account should the blankers be used folded. Blankets should never be switched on when the person is in bed. Smoking in bed is very dangerous.

Attics, basements, etc.:—Collections of junk should never be allowed to accumulate, because these are potential bonfires. Where there are roof lights, the area which can be reached by sunrays should be left clear.

Fire drill:—Work out at least two exits from every room, and see that everyone knows them. If you have a baby-sitter, see that she knows the escape routes and the location of the telephone. There should be domestic fire-extinguishers in every home. Everyone should know where they are and how to use them.

In the event of a fire, get everyone out of the building; call the fire brigade; switch off the gas and electricity at the mains if possible; start fighting the fire—but never use water on fires involving electricity or inflammable spirits or oils (paraffin, etc.)—(Pamphlet published by the British Safety Council, London).

ARE YOU MATURE?

Maturity is not a state one suddenly arrives at. It is a continuous development, achieved less by age than by insight.

By MICHAEL DRURY

THE word "maturity" is used so loosely that it flaps. If you are mature, you are presumed to be happy, secure, married, popular and well-adjusted. If you aren't mature, you are either incorrigible, defective or warped, and heaven help you. Such dogma betrays a passion for what maturity most decidedly is not: wrapping life up in neatly labelled parcels so that one need never bother about it again.

One of the most mature men I know is not married, probably never will be. I don't know whether he is afraid of marriage or is so self-contained that he sees no need for it. And yet he is mature in the best sense. He is extraordinarily aware—of other people, of surroundings, of moods and under-currents. He has humour, taste and appreciation—that bright silver gift for making others feel tall in his presence.

Maturity is a continuous development, and realizing that is in itself a mark of maturity. One does not arrive at it in some magical moment and stay there for the rest of one's life. Physical adulthood has very little to do with it. There is a maturity proper and possible to every age.

One day I watched two children playing in front of a block

of flats. The girl was about eight, fair and pretty. The boy, somewhat younger, was teaching her to ride his bicycle. She kept falling off. Just as I passed she fell again, and turning to the boy with a laugh she exclaimed, "I tell you, Jimmy, it takes real brains to be as stupid as I am."

I laughed aloud for sheer joy at her freedom within. For a moment we stood there, three fellow-beings sharing a wry delight in life and its pitfalls, and man's silly yet somehow glorious attempts to conquer them. There were no differences of age or experience to cloud our understanding.

That little girl had maturity. She saw herself as neither perfect nor imperfect. She had an awareness of her own completeness even as she moved from one accomplishment to the next. What a challenge that memory has been when I have found myself overawed by failure or success!

Young people have by their very inexperience certain qualities that the adult must preserve if he would be mature. For one thing they are trusting; for another, they are teachable, flexible, ready to try the new thing. Young people are always looking—for a partner, a job, a cause to believe in, adventure—and the result is an openness to experience, a willingness to be involved that is an important part of maturity.

It is not age, then, but insight that promotes maturity. A famous musician said on the occasion of his 80th birthday, "I feel in no way older or younger than I ever did." That signi-

ficant phrase or younger reveals a mature man, not by reason of his years but by independence of those years.

Every old person learns a secret that he sometimes finds hard to believe, harder yet to make others believe. He learns that inside himself he is not old and probably never was young. He is a self, one quite apart from the calendar. Some old people fear this and turn away from it, but those who make friends with it make friends with maturity.

Last summer the author and teacher, Edith Hamilton, sailed to Athens as the guest of the Greek Government to witness a production of her translation of *Prometheus Bound* in an ancient theatre at the foot of the Acropolis. She was almost 90 years old. Asked how it felt to be 90, she replied, "The older I grow, the less I know—but that isn't to say I trust less or have less appreciation for what is beautiful. The happiest decade is from 80 to 90. You are far more free from yourself; you are a better observer; life is more interesting as it goes on."

That is maturity—letting life happen in its own good order and making the most of what there is.

One hears a lot of talk about "emotional maturity" which, in a general way, is thought to be sexual maturity, and that in turn is believed to be a readiness to enjoy sex and its consequences—marriage and children. This is all right as far as it goes, but we must not equate maturity with sex. In so far as sex has

anything to do with it, maturity is the understanding of sex in ourselves and in others, the ability to weigh it with our other needs and measure the degree to which it is important or unimportant.

Marriage by itself is not a criterion for maturity. I know a girl who was a bride at 17 and learnt, as she put it, "what a terrible baby I was." I know another who married at 48, most successfully, and it was in her a mark of maturity that she hadn't married before. "I was designed for late marriage," she said once, "for companionship and quiet joys. I just wasn't capable of the starry-eyed stage, and something in me knew enough to leave it alone."

She didn't mean that for 48 years she knew no moments of self-doubt or anguish. Maturity is not joy unimpeded nor does it pick in the rags of its own inadequacies. My friend did not condemn others who married at 22, nor did she condemn herself for not doing so.

What, then, is maturity? I have heard it said that maturity is the growing awareness that you are neither quite so wonderful nor quite so hopeless as you once believed. Again, it is making peace between what is and what might be.

How can you be sure you're acquiring it? You can't—if you're looking for rules and formulas. Maturity isn't a destination, it's a road. It has, of course, some sign-posts. The more mature you become, the more you recognize these experiences when they happen.

The moment when you wake up after some staggering blow—some grief or hurt or disappointment—and think, "I'm going to live after all." The moment when you find out that something you have long believed isn't so and, parting with the old conviction, find to your astonishment that you're still you. The moment you discover that somebody can do your job as well as you can, and you go on doing it anyway. The moment you do the thing you've always been afraid of. The moment you realize that you are for ever alone but so is everybody else and so in some strange way you are more together than ever. And a hundred thousand other moments, in which you find out

who you are.

A nephew of mine once asked permission to swim out to a raft alone. But his mother said, "No. You are too little."

A few minutes later when he hit an infant cousin for taking his toy, his mother admonished him, "Here, now, you're too big to behave like that."

Outraged, the boy turned on her and screamed, "Sometimes you tell me I'm too little and sometimes you tell me I'm too big!"

My sister folded the child in her arms and said, "I know, darling. It's the hardest lesson to learn, and it's one we keep learning all our lives."—(*Glamour*).

HICCUPS AREN'T FUNNY

WHY does everyone laugh at hiccups? For the sufferer, they are usually far from hilarious. They can be embarrassing, distressing—and even exhausting if they go on a long time.

Hiccups can start for the silliest reasons: laughing too much, being tickled under the chin, downing a hot drink too quickly. There is, too, the alcoholic hiccup, and the hiccup brought on by excitement. On rare occasions, hiccups can be a symptom of some serious disease such as peritonitis, pleurisy, or kidney trouble. And sometimes a doctor comes across "hysterical hiccups."

I remember a girl who got in a

proper stew over an unhappy love affair and started a bout of hiccups that lasted for weeks. It did her no harm, because the "hics" stopped when she ate and when she slept. But for the rest of the time she hiccuped every twenty seconds. Finally, I had her hypnotized. This stopped her hiccups, but she was still unhappy and started having nightmares, which ended when she got over her love affair.

How do hiccups actually occur? Our breathing is regulated by a centre in the brain. When something irritates that centre we get the jerky breath called a hiccup. The toper gets this irritation in two ways:

from the alcohol circulating in his blood and from the nervous irritation of a disordered stomach. Sometimes the breathing centre in the brain is directly affected by a fright, by being crossed in love, or by poisons circulating in the blood.

More often the centre is irritated indirectly, by way of a very important nerve called the vagus, which is concerned both with breathing and digestion. Digestive upsets—and more serious things like appendicitis—irritate the vagus and cause hiccups. A small branch of the vagus nerve goes to the ear—and hiccups have been caused by mere wax in the ear. When hiccuping is due to some disease, obviously we should treat the disease; but mostly it is due to laughter, excitement, or

fright. The logical way to treat hiccups is to stop the breathing spasm. That is the basis for remedies like sucking lump sugar, holding your breath and drinking out of the wrong side of a glass. Since hiccuping often starts with a nerve irritation, it will sometimes stop with another. That is the basis for giving the victim a fright, tickling his nostrils with a feather, or plonking ice cubes on his midriff.

Get a large paper bag, keep blowing it up and inhaling the contents; this gives extra carbon dioxide to breathe; or plug both ears with your fingers and get someone to hold a glass of water from which you drink.—(*Daily Mirror*, London, via *World Digest*, April 1960).

Some Facts About the Common Cold

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Much information has been obtained concerning the behaviour of common cold virus in human volunteers. Only some 30-40% of those inoculated with active virus catch colds, and females appear to be slightly more susceptible than males. The presence or absence of tonsils and adenoids is of no significance. The incubation period was normally two or three days though one line of virus consistently showed an incubation period of four days, and this virus bred true when propagated through volunteers in series. Virus was recovered from volunteers as early as 24 hours after infection, and as much as 24 hours before the onset of symptoms. Experimental colds were normally afebrile, and mucopurulent discharge was slight and sometimes absent. This appears to indicate that secondary bacterial infection is less common in those under isolation conditions. Transmission studies showed that intimate contact was the most effective way of spreading infection, but contact infection succeeded less frequently than was expected. Children proved to be the best spreaders of infection, and epidemiological studies carried out in a 'closed' community near Salisbury confirmed the importance of school children in the chain of infection. We were able to show that the virus did not readily survive drying on handkerchiefs, and that fomites were probably of little importance in the spread of infection.

Attempts to modify the resistance of volunteers by subjecting them to chilling, and by making them wear damp clothes, proved unsuccessful, as did attempts to lower local resistance by plugging the nose.—(*Health Horizon*, Spring 1960).

