

199

Health

*A Journal Devoted to
Healthful Living*

199

Edited By Dr. U. Rama Rau & U. Krishna Rau, M.B.B.S.



Lgr. M. AHMADULLAH SHARIFF,
Physical Instructor, Shariff International P. C. Club,
Demellow's Road, Madras. Pupil of Sydney Ingleson of Bradford &
weight lifting champion of Great Britain in 1933-1934.

Vol. XIII. No. 9.

Sep. 1935.

Select Contents

The Importance of
Public Co-operation
in Health
Work.

—Editorial.

The Tuberculosis
Problem in India.

By Dr. R. A. Johnson,
M.B.B.Ch., D.P.H.

Oil Bath for
Health & Beauty.

By A Malabar Physician.

Price 2 as.

Office:

323, Thambu Chetty St.,
MADRAS.

THE UNITED INDIA LIFE ASSURANCE COMPANY, LTD.

Head Office: MADRAS. — Established in 1906.

Trustee: THE OFFICIAL TRUSTEE OF MADRAS.

Policies in force exceed Rs. 3 Crores.
Annual income exceeds Rs. 17 Lakhs.
Total assets exceed Rs. 69 Lakhs.

Among the distinguishing features of the Company are:—

Complete and absolute safety of investments;

Prompt and equitable settlement of claims;

Economical Management;

Moderate rates of premiums combined with attractive bonuses and

Efficient, sympathetic and prompt service to Policy-holders.

Complete information will be gladly furnished on application to the Head Office, Branch Offices, or the Representatives of the Company at the various places in our Country.

"UNITED INDIA ASSURANCE BUILDINGS,"
Sembudoss Street,
Post Box No. 281, MADRAS.

M. K. SRINIVASAN,
Managing Director.

CONTENTS

Editorial:—

THE IMPORTANCE OF PUBLIC CO-OPERATION IN HEALTH WORK.	161
FOOD AND HEALTH. By Dr. V. M. Kaikini, B.A., F.R.C.S., (Edin.) Hon. Surgeon, King Edward Memorial Hospital, Bombay.	166
THE TUBERCULOSIS PROBLEM IN INDIA. By Dr. R. A. Johnson M.B.B.CH., D.P.H., Golden Rock, Trichinopoly.	168
THREE GENERAL PRINCIPLES. By T. D. Mukherjee, M.B., D.P.H., Burdwan, (Bengal).	172
OIL BATH FOR HEALTH AND BEAUTY. By A Malabar Physician.	174
THIS EATING BUSINESS. From "Health for All"	175
LEPROSY WORK IN THE MADRAS PRESIDENCY.	175
HEALTH-TIT-BITS.	176

GONORRHOEA?



SURE CURE
GONO-KILLER
(REGISTERED)
SPECIFIC for
GONORRHOEA
GLEET

AND
ALL SORTS OF
URINARY DISEASES

PRICE PER PHIAL Rs. 3-0-0.
V. P. P. Charges Extra.

Sole Manufacturers:—

Dr. D. N. JASANI,
Girgaon Back Road, BOMBAY No. 4.

Robust Health in 10 Days.



More than One Hundred Thousand pupils of all ages enjoy **ROBUST HEALTH** and **EVERLASTING STRENGTH** by My Scientific System of Exercises! Why not you? If you are suffering from Nervous Break-down, Vital Depression, Consti-

pation, Indigestion, or from any other annoying defect, so called incurable, I give you proof in 10 days that you can be cured of your malady. Write now for my **FREE BOOK** "My Scientific System of Graduated Physical Culture" which is fully illustrated. Send 2 annas stamp in a thick closed cover for postage with your full address to:

Prof. M. V. Krishna Rao,
Ootacamund. (S. India.)

Founder: Sh-i Yogendra

Established: 1918.

YOGA

The Official publications of
the Yoga Institute of
INDIA.

Yoga Personal Hygiene: "A monumental work on the Yogic Physical Culture." JUSTICE. Prefaced by J. W. Fox, M.D. Pp. 327. with 31 Illus. Rs. 10/-; £1/-; \$ 5.00.

Rhythmic Exercises: "A new scheme of Physical Culture." BOOK REVIEW. Seventh Thousand. Pp. 78, with 19 Illus. Re. 1/-

Breathing Methods: "An ideal book on methods of breathing known to Orientalists." HEALTH. Second Reprint. Pp. 74, with 8 Illus. Re. 1/-

Way to Live: "Here is health in a nutshell." MODERN LIVING. Second Reprint. Pp. 96, with 11 Illus. Re. 1/-

Life Problems: "It is a book that can thrill and shake your whole existence." JUSTICE. Third Edition. Pp. 144. Rs. 2/8.

Easy Postures for Woman: By SITA DEVI. "A Text for the gentle sex in their study of practical Yoga." Second Thousand. Pp. 64, with eleven Illus. As. 12/-; 1s. 6d.

Simple Meditative Postures: "To the earnest students of Yoga, this work is indispensable. Second Thousand. Pp. 72, with 15 Illus. As. 12/-; 1s. 6d.

Can be had of

MESSRS. SRI KRISHNAN BROS.,

Post Box 166, Madras.

THE RAINBOW

A POPULAR FORTNIGHTLY MAGAZINE DEVOTED TO
ALL TOPICS OF GENERAL INTEREST.

Special Features:

1. Complete solutions and comments of almost all Puzzles Published in India.
2. Film News.
3. Photography.
4. Humorous short stories and Jokes. etc., etc., etc.

Single Copy—2 Annas.

Annual Subscription Rs. 3.

Those who enroll themselves as subscribers within the 20th March, 1935 need send only Rs. 2/8/-

WANTED:—Contributors, and Agents to sell this popular Magazine throughout India, Burma and Ceylon.

For Particulars apply to:—

The Manager, THE RAINBOW,
Washermanpet, :: :: MADRAS.



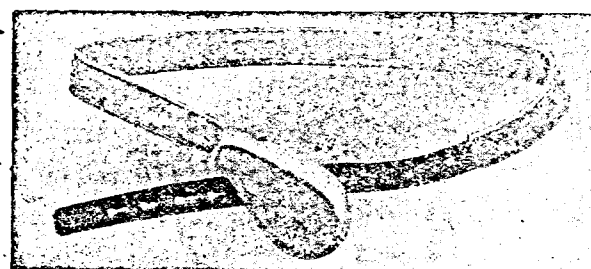
HERE'S
THE
REAL
SOAP
WITH
NEEM
IN IT

MARGO

TOILET MEDICINAL ANTISEPTIC-GERMICIDAL

Made by the Exclusive Patent Process of Deodorising known only to us.
THE CALCUTTA CHEMICAL CO., LD.,
Ballygunge, Calcutta.

Agents: **SRI KRISHNAN BROS.**
P. O. Box No. 166, Madras.



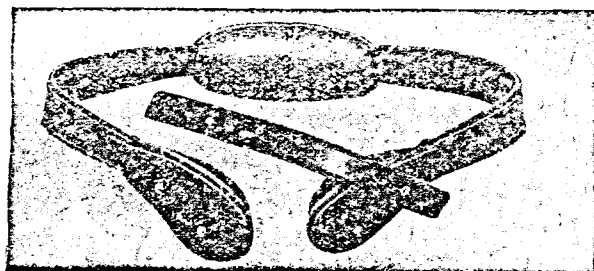
Trusses for Hernia

We have a large assortment of various sizes for infants and adults.

PRICE

Leather, Single Rs. 6
Do Double Rs. 12
Vulcanite, Single Rs. 10
Do Double Rs. 20

Booklet how to measure for and fit up a truss for hernia will be sent free.



SRI KRISHNAN BROS., 323, Thambu Chetty St., MADRAS.

Whooping Cough

Don't allow your Children to go on for 3 months helplessly struggling in the grip of a prolonged and suffocating Cough until it turns into Pneumonia and Asthma when you can cure them within 12 days with Dr. Perella's Whooping Cough Specific. Rs. 2-12-0 per bottle.

Asthma Cure

If you have failed with other medicines, make a last trial and be sure to succeed, as has been the case with so many. Rs. 4-8-0 per bottle.

Antidiabetin

It's use for six months will restore you to your former condition, being free from your long standing Diabetes. Rs. 4-12-0 per bottle. PETERA & Co., Cerebra, Rs. 20 Calcut (S. India).

Madras Customers Apply to:—

Mrs. C. REGO,

Opposite Railway Institute, Perambur.

ARYAVAIDYASALA

P. S. VARIER'S

Reliable Ayurvedic medicines with instructions and suitable prescriptions for all kinds of formidable diseases can be had from:

THE MANAGER,

Aryavaidyasala, Kottakkal, S. Malabar

Degrees! Books! Medicines!

H.L.M.S., H.M.B., H.M.D., Baidyaraaj etc. Homœo-Ayur-Unani free degrees by regular and postal tuition examination. No degree fee. Homœo-Materia Medica Rs. 5. Homœo-Practice of Medicine Rs. 4. Independent bread. Enclose 2 annas stamps:—

HOMŒOPATHIC INSTITUTE,

P. O. Mahuva (Kathiawar Dist., India.)

ALBUM OF INDIAN CINEMA STARS



A fine collection of the Indian Cinema Stars that have appeared on the stage in the various Cities of India, during the past few years. While many have appreciated their music and extolled their histrionic talents, as visitors to the stage, they are apt to forget them and their beautiful countenances and actions while out of it. To such of them, this Album, on their tables, will serve as a constant reminder.

It is neatly printed on nice paper and priced cheap, only 0-12-0 per copy Post free. It is a new venture in the field of Indian Cinematography and for the very love of the art, every home should have a copy. Order your copy early, lest disappointment should overtake you through delay.

Special concession to subscribers of Health 0-8-0 post free if postage stamps are sent in advance.

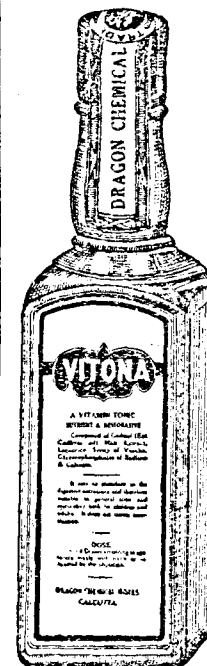
Copies can be had at:

SRI KRISHNAN BROS.,

323, Thambu Chetty Street,

::

G. T., Madras.



No more that nauseous Codliver Oil! Here is

VITONA.

Composed of Extracts of Codliver, Malt, Glycerhyza, Vasaka, Glycerophosphates of Sodium & Calcium—based on Sherry.

Vitona is a valuable tonic in convalescent state after prolonged illness. It increases appetite, regulates digestive system and rapidly improves weight and strength—Women need it particularly during the period of gestation and lactation. Contains Vitamin A. B. & D.

It is a palatable preparation of codliver oil without any bad smell. One part of Vitona is equal to one part of standard Codliver Oil.

Rs. 2-8 Postage Extra.

Ask for complete catalogue of our products.

THE DRAGON CHEMICAL WORKS, BOMBAY 7.

(Multani Mandir, Grant Road.)

HEALTHFUL DIET FOR INDIA

BY

Dr. H. CHARLSON, MENKEL, M.D.

An up-to-date and scientific exposition of the subject of Dietary for India.

Over twenty years of medical practice in India, dealing with nutritional and digestive problems has well qualified the author to prepare a book suitable for popular instruction on this important subject. Just such a book as physicians desire to place in the hands of their patients as a guide to healthful dietary practice.

The book not only reflects a thorough study and knowledge of Indian conditions on the part of the author, but also follows in the main the principles of Dietary laid down in our religious scriptures, Hindu or Buddhist, Mohammedan or Christian. The book also gives methods of preparing menus, which with suitable modifications may be adapted by even the poorest of Indian home.

Price Rs. 6.

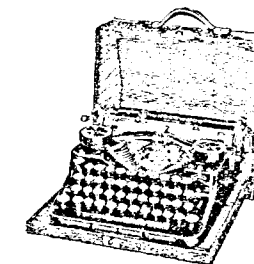
SRI KRISHNAN BROS.,

POST BOX 166

::

MADRAS.

UNDERWOOD PORTABLE TYPEWRITER.



The New Underwood Portable has the same keyboard as Standard Office Machines. It's sturdy & strong. In every phase of its construction—"It's more than a Portable; it's an Underwood."

Agents:

BYRAMSHAW & CO., LTD.,

Mount Road, Madras.

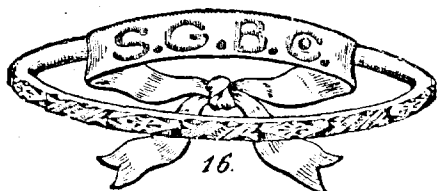
Phone: 3645.

Telegram: 'MINORU.'

SCIENTIFIC GOLD JEWELLERY

Highly Appreciated by

High Court Judges, Ministers
to Government and other
Eminent Public Men



Full Catalogue Free.

The Scientific Gold Bangles Co., Ltd.

Head Office:—43, Byragimattam Street.
Branch:—104, China Bazaar Road.

Post Box No. 203, MADRAS



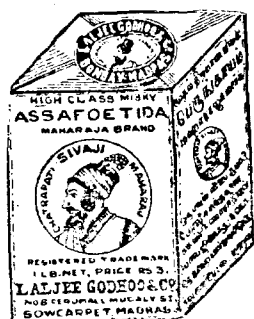
FASTER
THE NEW
ROYAL
PORTABLE
TYPEWRITER

Cash or Hire Purchase

Send for Literature

ADDISON & CO., LTD.,
Mount Road, - Madras.

**HAVE YOU EVER
USED OUR**



**CHHATRAPATI
SIVAJEE
MAHARAJ
BRAND PURE
ASAFOETIDA.**

It has a rare
distinctive
flavour &
taste of its
own. Many
Ayurvedic

and Unani Pharmacies also use it.

A half pound costs only Rs. 1-8-0.

V. P. Extra.

Laljee Godhoo & Co.,

Sowcarpet, Madras.

MAKE MONEY!
from WATER!!

**Buy Your
SODA FOUNTAIN
NOW.**

H. SASSEN & CO.,

15, Armenian St.

Post Box No. 163, Madras.

Health

*A Journal Devoted to
Healthful Living*

Edited By Dr. U. Rama Rau & U. Krishna Rau, M.B.B.S.

Published in

ENGLISH, TAMIL, TELUGU AND CANARESE.

Annual Subscription for any edition Rs. 1-8. Foreign Rs. 2. Post paid.

Editorial and Publishing Offices:—323, Thambu Chetty Street, George Town, Madras.

EDITORIAL

The Importance of Public Co-operation in Health Work

THIS is the subject of a lecture delivered by Dr. U. Krishna Rau, M.B., B.S., our Associate Editor, at the Health Exhibition held in Triplicane, Madras, on the 3rd August '35. Being himself a Councillor of the Corporation of Madras and a Medical Practitioner of more than 10 years standing, his address has the weight of authority behind it. As a knowledge, however cursory it may be, of the civic duties outlined below will go a great way towards establishing cordial relationship between the public and the Health authorities, besides ensuring the health and happiness of each individual and, incidentally, the health of the City generally, we are tempted to reproduce it here in extenso, for the benefit of our readers:—

Dr. U. Krishna Rau, addressing the rate-payers assembled, said:—"The importance of public co-operation in Health work cannot be gainsaid and

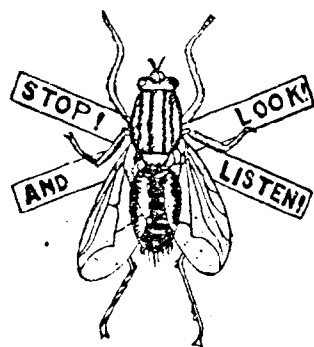
health work will be an utter failure without public co-operation. Perhaps, you would require proof of this statement, and I shall adduce some for your enlightenment.

1. **Registration of Births.**—As soon as a child is born in your house you must see that the birth is registered at the nearest registration Office. The health of a City is generally gauged by its birth, death and disease rates and if you want to know whether your City is healthy or not, you must consult the vital statistics or the book-keeping of the Health Department. The one thing which citizens generally fail to perform and escape with impunity is the Registration of Births. Whatever may be the vigilance of the Health Department in tracing out births, it is difficult to trace all of them out, for many children are born with the aid of unqualified dais, who are as ignorant as the parents them-

selves of their civic duties and responsibilities. Now, what is the harm if one child is not registered? It may escape vaccination. Supposing it is attacked with small-pox, it will be the source of a great conflagration of an epidemic of small-pox. Many children, not vaccinated may succumb, many adults too may be the victims of this dire disease. This brings me on to the question of infantile mortality. The infant mortality in Madras *i.e.*, infants under one year is about 250 per 1000 live births. The infant mortality in England is only about 59 per 1000 live births. In England, at the end of last century, it was 154 per 1000 births. So that, in the course of half a century, the people of England had been able to effectively reduce the infantile mortality in their country by 100 or in other words, save 100 children more out of 1000 births. If you want to get rid of this horrible 'slaughter of the innocents' in Madras, you have a definite duty to perform *i.e.*, to co-operate with the Health Department in registering the births of your children in time.

2. **Vaccination.**—Your next duty is, as I have already told you, to get your children vaccinated in time, say, within six months of its birth. The disfiguration of the body, the maiming of the limbs, the loss of eyes and the physical wreckage, which are the horrible sequelæ of a malignant type of small-pox are not unknown to you and if you want your children to escape those horrors, you must get them vaccinated. At the same time, you must see that all the contacts in your homes, be they men or women, youngsters or adults, get re-vaccinated to

avoid infection. Vaccination confers immunity only for a specific period, 7 years or so, therefore, it behoves you to get all the members of your household re-vaccinated once in 7 years. Small-pox will then completely disappear from our midst in a very short time. Likewise, Scientists have recently discovered another vaccination, which they call inoculation for prevention of cholera. This inoculation is harmless



The Fly is the chief carrier of germs of typhoid, cholera and dysentery. Kill the fly or else it will kill you.

and by wholesale inoculation of healthy people, Cholera can be prevented and the city can be saved from a horrible epidemic.

This way lies your co-operation in Health work.

3. **School Children.**—The health of the school-children is anything but satisfactory. The parents do not care for their health because they have their eyes fixed only on their education and the monetary prospects it may bring on. The teachers care more for the results at the class examination than for the general health and comfort of the students under their charge. The school authorities care more for the income and do not care to provide more space, more amenities, to students. I am not drawing an exaggerated

picture of the condition of schools and their inmates in this country. The housing of schools in ramshackle buildings, the overcrowding of schools, the lack of ventilation and sunlight, the inadequate and impure water-supply, the want of playing grounds, the unclean latrines still form topics of adverse comments on Indian Schools and these defects react on the health of the school children. There is a medical inspection of school children conducted annually and though haphazardly done, they yet reveal serious defects of development among school entrants—bad teeth, rickets, squint, diseased tonsils, rheumatism, tuberculosis and similar ailments of a major character. These defects are certainly preventable and it is for the parents to take the necessary steps to give effective treatment. You will have to impart health education to your children at home by insisting on their reading health journals, health tracts etc. You must infuse civic duty and a sanitary conscience in them from their youths. That will be a great help to the health authorities whose work thenceforth will be made easy.

4. **Conservancy and Sanitation.**—Among the many civic duties and responsibilities thrust on you as citizens, you must see that your houses are kept clean and that the rubbish collected should be thrown into the dust bins provided in the streets for the purpose or kept in a tin receptacle in front of your house to be emptied when the rubbish cart passes by your street. Never throw the rubbish into the street sides, for, the wind will scatter it and spread disease through it. You will be helping the health authorities if you only throw inflam-

mable rubbish and not glass pieces and the like, into the dustbins for you must understand that most of the rubbish is thrown into the incinerator and burnt and these solid pieces will have to be separated therefore, which means a large staff and a heavy strain on them. Your co-operation will result in the decrease of expenditure and the lightening of your burden of taxation.

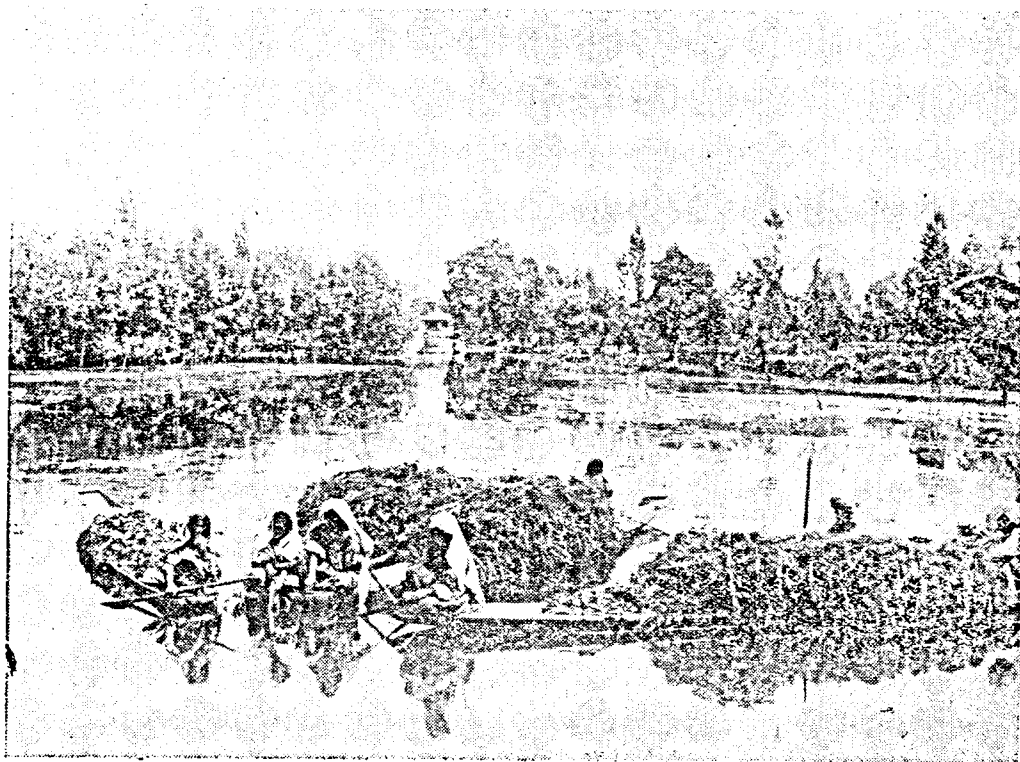
The dirty habit of throwing night-soil into the dustbins should cease and the still dirtier habit of allowing children to defecate into the drains and on street sides at all times of the day and adults themselves defecating during dark hours abandoning all ideas of decency should be given up. Urinating in the open streets by adults in broad day light is a deep-rooted custom, especially in Madras, in condemnation of which Mahatma Gandhi spoke so vehemently, when he visited our City last. The Corporation have provided separate urinals in streets and they must be largely availed of. Public co-operation in this direction is most needed and if the city is to be sightly and healthy, this habit must be discontinued.

5. **Overcrowding.**—This is a subject which requires your careful and earnest consideration. Overcrowding affects the welfare of men, women and children, as regards their moral, mental and physical health. The moral atmosphere is vitiated by the herding together of adults and children, the latter seeing and hearing things which should not be experienced during early years. A decent and clean house is impossible in the midst of overcrowding. The mental state suffers from the worry of trying to

L: 5 m 211, N 23 HE
1135-13-9-0

keep a decent and clean house, the lack of privacy, the irritation of overcrowding and the loss of personal pride. Infectious diseases especially tuberculosis will have a strong foothold in overcrowded houses. The latrines, unless they are flush out ones, will always be unclean. Water-supply will both be inadequate and inconvenient, making cleanliness of

words, in preventing morbidity and mortality rates from swelling? To those who are landlords, I say, please have mercy on the poor souls who occupy your houses. Let not Mammon guide you while planning the house for tenements. Limit the number of tenements according to the size of the plot and provide them with all possible comforts. There you will have earned



View of Dal Canal showing boats full of Vegetables. Always buy fresh Vegetables and Greens, brought from village parts.

even flush out latrines impossible. There will be lack of fresh air and sunlight. The danger of vermin is also very real. Life under such conditions will not be worth living. Overcrowding is a big problem that confronts the Health authorities, everywhere, more so in Madras. How can you help the health authorities in preventing overcrowding, in other

the tenant's lasting good-will and gratitude. To those who are tenants, I say, you have the temptation to live in the vicinity of your business places and you don't want to migrate even a few yards away on grounds of economy and convenience. But, it is false economy to live in an overcrowded house and pay a very high price in the shape of Doctor's bills and Death's

toll. So far as the Corporation is concerned they have done their best and are still doing by acquiring all vacant lands in and around Madras and reserving them as building sites. Your duty, therefore, lies in migrating to suburbs, thereby avoiding overcrowding in the city. Your hearty and active co-operation is essential in this behalf.

6. Food adulteration.—This is another subject which is vitally concerned with your health and in which your co-operation with the health authorities is required. You must always try to purchase good food-stuffs even though they may cost you a little extra. Insist on having good stuffs from vendors and if you get adulterated stuff, you report at once to the health authorities. There is a special staff to prevent food adulteration but they are too inadequate to accomplish much themselves. Remember that adulterated and rotten food stuffs are the fertile sources of all bowel complaints such as dysentery and diarrhoea.

7. Water supply.—The Corporation have provided you with drinking water at a heavy cost and it is your duty to see that you use it economically and not waste it. The water, though for all practical purposes is pure, is yet not quite safe for drinking as the filtering arrangements are still imperfect. You would do well, therefore to boil it, cool it and then drink it. Thereby, that dire disease Cholera, which is now raging in our midst, can be arrested.

8. Notification of Diseases.—When there is an infectious disease in or near your house, you must at once report the matter to the health authorities and not try to hide it for

fear of molestation from your neighbours or inconvenience to yourself by way of isolation, segregation or disinfection which you must perforce submit yourself to. Nowhere else will your co-operation be more valued than in this. If every one takes it into his or her head to notify then and there, any infectious disease in his or her household, there can be no fear of any epidemic spreading beyond bounds.

9. Registration of Deaths.—You are required under the Act to register any death occurring in your household, in the same way as you are required to register births. Registration of deaths in Madras may be said to be perfect for there are checks and counter-checks leading to the detection of failures and bringing the offender to book.

10. Certification of Deaths.—This is one aspect of public duty which the municipal law as it now stands in Madras does not require you to do. In registering deaths, you are often asked "of what ailment did the deceased die?" You cannot answer, for you do not know. It is the attending doctor that can enlighten him on the point and so you naturally give some vague answer, fever, diarrhoea etc. The Health authorities are in a fix and are not in a position to know what disease is prevalent at a particular time. It is therefore necessary that you should obtain a certificate from the last attending doctor, as to the nature of the illness the deceased suffered from at the time of death to enable the Registering Officer to classify the death accordingly. But here, doctors too must co-operate and grant the certificate free in the

interest of public health. Your willing and voluntary co-operation in this behalf will be most welcome.

I am now coming to the end of my lecture. I have indicated to you in what ways you can assist the Health Department and what part you must play in the promotion of your own health and happiness. But, one thing I must tell you before I close. You must always consider the Health Officer as your friend and not your foe. What he advises you to do is after all in

your own interest and it would be suicidal to defy him or disobey him. If he issues any notice asking you to repair a latrine, or whitewash your house or construct your house drain or keep your cattle shed in proper repair and so on, comply with it at once. Don't run about and seek the aid of your Councillor-friend to intervene on your behalf to get it cancelled. You will be sounding your own death-knell if you do it. Your safety, lies in your own hands."

Food and Health

By

DR. V. M. KAIKINI, B.A., F.R.C.S., (EDIN.).

Hon. Surgeon King Edward Memorial Hospital, Bombay.

THERE is a well known saying in India *viz.*, "one who knows how and what to eat never suffers from disease." There could not be a wiser saying than this. It can be safely said that ill health in the majority of cases has some definite relation either to the quantity, the quality or the method of consumption of food. Even among large bodies of people certain diseases are found to be prevalent when the nutrition of the people is at a low level due to want of sufficient food. For example, it has been reported by the inquiry committee officially appointed about malaria in India that the incidence of malaria varies directly according to the rise in prices of food stuffs. So also other diseases like tuberculosis, anaemia, leprosy etc. are found to be on the increase among people who are not getting the

required amount of nutrition due to inadequate food. Even an infectious disease like plague is due to poverty and ill-nourishment. Dr. Glen Liston an authority on this disease says that the warm climate like that of India is not very favourable to the extensive spread and prevalence of plague, and that the poverty and ill nourishment of the people are at the bottom of the disease prevailing here for so many decades.

It has become a fashion among our people to blame the climate of India for the ill-health of the people and the diseases prevailing here. They forget that the so called 'tropical diseases' like malaria, leprosy etc. were about a century and a half ago more prevalent in Europe and other cold countries than they were here. Want of proper nourishment due to inade-

quate food etc. has caused these diseases to spread so extensively in India. Even now those who have had a chance of seeing and observing the physical capacity of Indians, for example, on the battle field especially, during the last great war, have asserted that, for physical endurance and stamina, Indians were found to be as good as and many times superior to the men of other countries when chances for comparison occurred. Of course these men were properly fed and looked after.

However, the question of poverty is one to be taken care of by the political economist. As medical men we have to find out what sort of food is the best one for nutrition and health. Every article of diet to be good for health must contain the proper amount of proteins, fats and carbohydrates. Even people who have enough of money to buy the best food required for good health, don't seem to be particularly careful about the quality and quantity of food they are eating and thus don't get the required amount of nourishment for their body. It has been found by Dr. McCarrison after many experiments that the ideal food in this world is the diet usually taken by the Sikhs in the Punjab *viz.* lacto-vegetarian diet. It consists of milk, milk products like curds, ghee etc, chappatties made from hand ground wheat (whole-meal bread) and green vegetables. According to him, this food gives the best nutrition to the body and develops other physical qualities also. But in other parts of India where wheat is not the staple food and rice, jwari and other cereals are mostly eaten, the same amount of

nourishing properties could be developed in the dietary, provided other essential constituents like ghee, butter (fats), dal (protein), milk etc. are added to it. It is a common belief that flesh is essential for building a healthy and strong body. But nothing could be farther from truth. Of course, where one is not able to get vegetarian food containing the necessary amount of nutritional constituents, one must not hesitate to partake of meat diet.

Next comes the question of the diseases that may be caused by over-eating. It is a common experience of medical men that many of the diseases of the human body *v.g.*, kidney diseases, anæmias, joint diseases and other severe maladies are caused by over-eating. It must be remembered that indigestion due to over eating and use of rich artificial food, causes liberation of poisons in the body which affect the important organs like the kidneys, heart etc. and give rise to very serious diseases.

Finally, it should not be forgotten that no food can be digested and assimilated by the body without proper exercise. In a hot climate like that of India, exercise is a very essential thing. It has been found by experience that exercise is a necessity for sound health more in the hot climates than in the cold ones.

So, the chief essentials for sound health are proper food, and proper exercise. If we are careful about these two things we will not have the necessity of finding fault with God Almighty for having given different climates to different parts of the world.

The Tuberculosis Problem in India*

By

DR. R. A. JOHNSON M.B.B.CH., D.P.H.,

Golden Rock, Trichinopoly.

TUBERCULOSIS has been hailed the Great White Plague, and the havoc it has wrought with human lives and happiness makes the name a well deserved one. The disease is rightly held in dread in every country. Among diseases, it is mankind's greatest enemy; and next to War it is the greatest physical evil in the World. Millions are killed by it every year, and many more millions are crippled and disabled. Families are reduced to poverty and misery; and public money is lavished in combating this foul disease. T. B., kills 1 out of every 7 or 8 people born into this world.

Tuberculosis does not kill quickly like Cholera or Pneumonia. It inflicts years of suffering and disability on its victims before it deals the death-blow. Of all diseases it is the most wide-spread, the most insidious, and the most difficult to eradicate. No country in the world is exempt, though some countries are more affected than others. Unlike Cholera and Malaria, it is not confined to certain areas, climates or seasons. It is an universal, all-pervading enemy. Although it is mainly a disease of children and young adults, no age is exempt from its attack, and many animals besides man are affected.

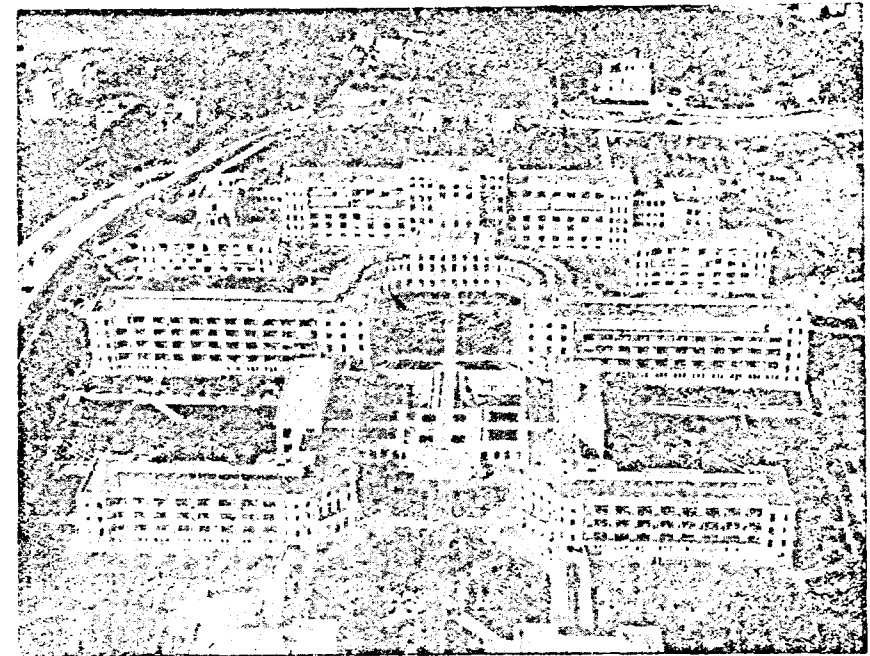
In considering Tuberculosis, we have to think of two main things, the germ and human body; and these may

aptly be described as the "seed" and the "soil". Tuberculosis is caused by a microbe whose habits are well known to science. This microbe is present in the bodies of tuberculosis patients, and it is discharged in countless numbers in the expectoration and other discharges of the patient. Although it is killed in a few hours by sunshine and fresh air, it can survive for months in dark and dirty places ready to carry on its foul mission of disease and death. It can be carried through the air on particles of dust. It may safely be said that the seed is everywhere, waiting only for a suitable soil in which to settle and grow. The soil is the human body; and whether that soil is suitable or not depends on the physical condition and habits of each individual. A healthy man or woman, with broad shoulders and virile chest, leading a healthy, open-air life and partaking of normal diet is likely to offer stout and successful resistance to the invading germ. But the weakly, ill-nourished, sedentary individual is very apt to fall a victim and to become a source of infection to others. To eradicate the seed completely is a most difficult matter. Much can be done by hygienic measures; but much more can be done to render the soil unsuitable, and it is in this direction our main efforts must lie. Every measure which tends to make

the individual, especially the young adult, more healthy is an advance in the war against tuberculosis. Open-air-life, healthy games, nourishing diet, correct posture, cleanliness and hygienic habits all these are methods of defence against the invading enemy.

It is sometimes asked if Tuberculosis is curable. The answer is "yes", but it is a "yes" with many reservations. Much time and labour has

in the human body in the way that Quinine will kill the germ of Malaria. In most cases, careful and prolonged treatment will arrest the course of the disease. In some cases the patient may be returned to his community to resume his ordinary occupation with unimpaired efficiency; but in the majority of cases he will return to ordinary life only on probation, or with his efficiency more or less imp-



Signor Mussolini opens the Benito Mussolini Sanatorium in Rome.
An aerial view of the magnificent Sanatorium.

been spent in studying various treatments for Tuberculosis, and much public money has been expended on Sanatoria, special Hospitals and Dispensaries. It is all part of the war against the dread disease. But the treatment of a well-established case of Tuberculosis is long and tedious, expensive and uncertain. There is no known drug that will speedily and certainly kill the germ of Tuberculosis

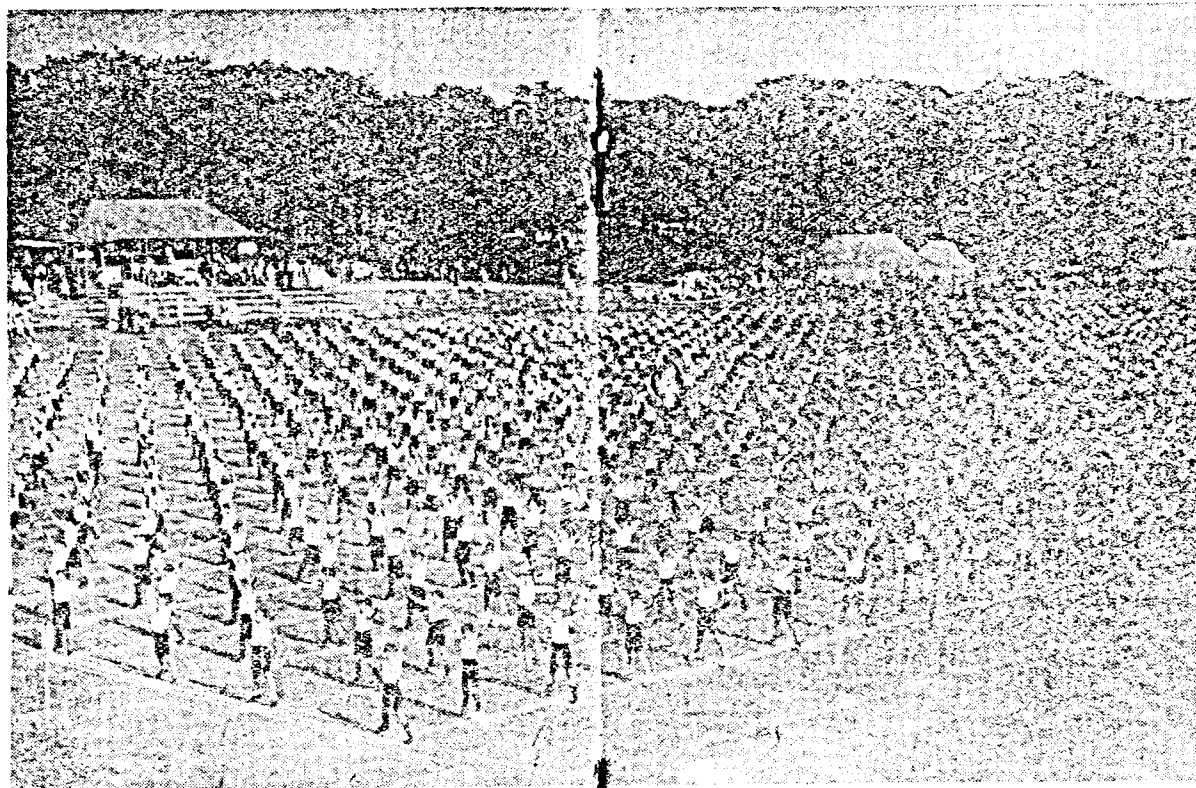
paired. Even if we effect a complete cure we have merely eradicated the disease from one individual and lessened the chances of infection for his immediate contacts. We have still to tackle the social conditions which made that individual a victim to the disease and which are exposing millions of others like him to the same danger. In Tuberculosis prevention is very much better than cure.

* A lecture delivered at the Health Week held in March '35 at Trichinopoly and specially sent to 'Health' for publication.

We are sometimes asked if Tuberculosis is hereditary and if it "runs in families". It does "run in families", but that fact is due to environment rather than to heredity. The babies of tuberculous parents are not born with tuberculosis, nor with any special inherent liability to the disease. They contract the disease through living in close contact with their diseased parents and under the same unhygienic conditions. If separated from their parents and given healthy environment they have as good a chance of escaping the disease as the children of healthy stock.

What are the special factors concerning Tuberculosis in India? I have said that every country in the World has its Tuberculosis problem, and India is by no means an exception. In Europe and America, and in many other parts of the world, an organised attack has been made on Tuberculosis during the last few decades. In all these countries deaths from Tuberculosis have shown a marked decline. This is partly due to a gradually acquired immunity, partly to the organised efforts of the Public Health Authorities and partly to the all-round improvement in housing, sanitation and the standard of living. The European War caused a temporary check in the advance against Tuberculosis in all countries where its baneful influence was felt. It brought misery and starvation to the fighting nations; and misery and starvation fight on the side of Tuberculosis. Apart from this temporary set-back, the successful fight against Tuberculosis in the West has been one of the outstanding triumphs of Sanitary Science. Unfortunately, India has not shared in this triumph. Every year in India more than 600,000 people die of Tuberculosis. To put it more graphically a number equal to the entire population of Madras City is wiped out every year by

this foul disease. To this harvest of death must be added the untold misery, suffering and economic loss of millions of other victims who in most cases are merely waiting for death. What is more important still from the Public Health point of view is the terrible fact that Tuberculosis in India is on the increase. In other



*Festivities in the Sunshine. Physical Drill by Leeds School-children.
Sunshine confers immunity from Tuberculosis.*

words, the advance which has been going on in most Western countries for the past 50 years has not yet begun in India.

In many respects India would appear to have many advantages in the fight against Tuberculosis. There is unlimited sunshine and the vast majority of the population is engaged

in open-air agricultural work. But against these advantages there are many factors which turn the balance in favour of the Tuberculosis germ. They are poverty, ignorance and mal-nutrition among the masses, bad housing and lack of sanitation, and purdah custom among certain classes, early marriage, rapid urbanization of the

public regarding Tuberculosis is a complicated matter. We can, however, benefit by the experience of other countries. If I were asked to give advice in the shortest possible form to all the people concerned in this problem, I would address every-one from the ruler to his humblest subject. To the unfortunate victim of Tuberculosis, I would say: "Put yourself at once in the hands of the Public Health Authorities, and obey their commands implicitly. And in the meantime, don't spit in public places". To the healthy population, especially our young men and women, I would say "Enjoy God's fresh air and sunshine. Ventilate your lungs. Exercise your bodies. Don't stoop. Don't indulge in any excesses. Enjoy a nourishing diet and see that it includes plenty of fresh milk". To teachers, professors and parents, I would say, "On peril of your life, see to it that my advice to the young is carried out". To local administrations and philanthropists, I would say: "Improve the conditions of the masses. Give them an economic wage, decent housing and sanitation, the wherewithal to buy decent food, and the leisure to ventilate their minds and bodies". And lastly to the mighty ones of the earth who rule the destinies of mankind, I would address this most humble but none the less earnest petition:—"Don't go to War. In war nobody wins except the Tuberculosis germ and his numerous allies

workers under the worst possible conditions. The tuberculosis germ fares badly in the open space under tropical sunshine; but in the dark and filthy corners of the ryot's hut or the slum-dweller's hovel he finds conditions to his liking and there he flourishes exceedingly.

To give practical advice to the

Give your subjects peace, prosperity and security. They are the enemies of Tuberculosis. Out of the millions you are now spending on armaments give a few thousands to advance education and hygiene. It will repay you well".

From these pieces of unasked-for advice it should be apparent that the Tuberculosis problem is the concern of all. Tuberculosis has rightly been called a social disease. Its progress

depends very largely on the social and economic conditions of the community. To the improvement of these social and economic conditions every member of the community can direct his energies. It is not so much a question of discovering some new and marvellous cure for active tuberculous disease (however valuable such a discovery might be). Rather is it a question of utilizing in an organised way the weapons we have at hand. In this war against Tuberculosis our ranks must be disciplined—doctors, nurses,

health-visitors, research workers, administrators, teachers, parents, school-children—all these must be marshalled in their proper place. Every activity of the enemy must be met with appropriate weapons. The consumptive patient who spits on the ground is an enemy; but much more so is the politician who plunges his country into a World War. It is only by a relentless attack on every ally of the Tuberculous germ that we can hope to wage a successful war on the Great White Plague.

Three General Principles

By

T. D. MUKHERJEE, M.B., D.P.H.,

Burdwan (Bengal).

OF the many rules of health and hygiene, there are three which may be characterised as fundamental and of vital importance to mankind. I propose to call them three general principles for which every one of us should have due regard to keep his health in proper order. They are simple but most important. Any violation of any one of them may not cause immediate injury but in the long run the health will suffer, while proper attention to them is sure to keep us in good health. Though every one of indifferent health is aware of their importance yet, their reiteration will not be useless in the same way as it will not be needless to provoke the fire into blaze when we are already winterbeaten. Always say 1, 2, 3.

1. Keep yourself clean.
2. Eat moderately.
3. Have fresh air and sunshine.

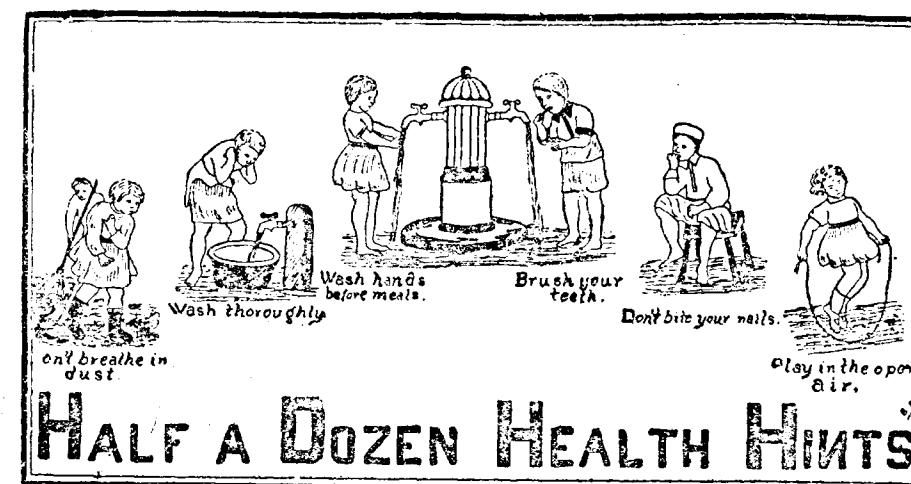
Keep yourself clean both in body and in mind. Immense meaning is hidden in this one sentence. Bodily cleanliness includes, taking of daily bath, use of clean and suitable clothings and beddings and keeping of the bowels properly moved, coming not in contact with dirty things, keeping the mouth and teeth and nails cleaned and so on. Mental Hygiene includes prevention of worry, fright, grief, disappointment etc. These factors impair the happiness of the person and thereby they impair the individual's health. Hygiene means prevention of diseases and promotion of health, psychical health is closely

related to physical health. Mental hygiene depends upon the environments and our surroundings. Of course the conditions are greatly modified by education and by the controlling power of our mind. But anything which tells upon the mind is also detrimental to the health of the body. Therefore try to keep yourself free from any sort of mental trouble to keep the health in proper order. Worry and anxiety are the precursors of various sorts of illness and should be avoided as far as possible.

The wise saying that more persons

of protein leads to putrefaction, excess of carbohydrate to fermentation, and fat to acidosis. Generally, we eat sufficient quantity of food and generally in excess, overloading the stomach but take little care about the nutritive value of the food and suffer from Dyspeptic symptoms leading to various diseases of different systems of the body.

The propaganda of the Public Health Officers has convinced the public about the benefits of fresh air and sunshine. Formerly in our country the sages had great respect for water,



die by eating than by want of food, is well known to all. Gluttony is a sin. Choice of food is a very serious matter in relation to health. Moderate quantity of nourishing food is only required to preserve health. Excess of food leads to various sorts of diseases of the stomach, liver, kidneys, arteries, etc. The diet should be sufficient according to the requirements of the vigor and nutrition of the body and must be of mixed and balanced type, about which most of us in this country are ignorant. Excess

air and sun. We came to ignore their teachings and suffered greatly in consequence, but at present we are endeavouring to follow the ancient rules.

Fresh air is absolutely necessary for our health. One should always try to have it and avoid bad, vitiated air especially of crowded places. Sleeping in open air should always be tried, keeping the body if necessary not exposed to cold. The sunlight has got rays of long and short waves. The rays of short waves are more beneficial

for our health and the Ultraviolet rays of the sun which are of short waves have got great detrimental influence upon the bacteria injurious to our health. These rays are easily absorbed by the living cells of our body and promote their vital power: these are powerful in their chemical action and

beneficial to our health. The good influence of sunlight upon our health is due to its Ultraviolet light which is of those short waves. In our country according to the present theory the sunlight gives out the greatest number of the rays of short waves during the middle part of the day.

Oil Bath for Health and Beauty

By

A MALABAR PHYSICIAN.

How does the Malabar woman preserve the silky smoothness of her skin. Skin foods and cosmetics are not within the reach or even the knowledge of any but the few English-educated and rich among Indian women. But there is one treatment which is within the reach of all but the most indigent, and that is the oil-bath.

The oil-bath is known all over India. But it is not so much a matter of course in other parts as on the West Coast. In other parts of South India, it is a more elaborate affair. Also the rubbing of turmeric powder, which accompanies the oil-bath, and gives a jaundiced appearance to the face, is unknown in Malabar.

With Malabar folk, the oil-bath is more frequent and takes up less time. The busy house-wife is at liberty to indulge in it after a hard day's work, as well as the leisured lady. For the former especially the oil-bath is one of the readiest methods of relieving fatigue and inducing restful and unbroken sleep. In Malabar the oil-bath is so common and considered so necessary that among the poorer

classes the minimum that is expected of a husband is clothes for wear *and oil for bath*.

Cocoanut oil or gingelly oil or a mixture of the latter with ghee and a little castor oil heated over the kitchen fire, is used by the poorer classes, while there are expensive medicated oils for such as can afford them. The oil is rubbed all over the body with a gentle massaging movement. About ten minutes rubbing is sufficient. Then the oil is washed off with a little powdered green gram or horse gram mixed into a paste with water. This simple treatment imparts to the skin a delectable smoothness and leaves no trace of greasiness.

Beauty experts are never tired of stressing the importance of general good health to all who desire a clear complexion. Oil-bath facilitates the elimination of waste products and toxins from the system. It prevents and relieves constipation. This result is achieved all the more effectively if a cup of water is taken shortly before the bath and the abdomen above the navel is rubbed gently from left to right for about 10 minutes. The

oilbath is usually taken once or twice a week.

A sanskrit verse in a well known Hindu Medical work in enumerating the benefits of oil-bath states—oil-bath taken at regular intervals relieves fatigue, wards off premature old age, sharpens the eye-sight, induces sleep, and imparts firmness and beauty to the skin.

This Eating Business

How strange that man should seek about and
To eat in public rather than at home; [roam
And for his food to pay ten times as much
As for that within his own domestic hutch.
As well as wonderfully to be able
To eat what he could not at his own table.
It seems no one can live hilariously
Unless he gurgitates gregariously.
One wonders waitresses do not retreat
From seeing human beings always eat,
At times they must be given frightful pause
By the unending view of champing jaws.
How odd a commentary on our culture
That man behaves in public like a vulture.
The whole of human outlook and its view
Depend, it seems, upon a "pot for two".
And life itself must find its sharpest edge
When bound up in a chop and two of veg.
Thus it seems that uplift, art, and Shelley
Oft have their roots within a well-fed belly.
At every meal the customers are prostrate
With superfluity of carbohydrate;
Anæmic girls ingest a chocolate bun,
A cup of tea, and then their meal is done.
Strong men devour a sausage plus the rind
And then declare how well they've dined;
While lip-sticked typists pick a dainty feast
From "creamy" pastries, plentifully greased,
A-mingling well with smeary reddened drips
Of the greasy mess from off their lips.
With starches, jams, grease, not to mention meat,
Humanity is kept upon its doddering feet.
—Health for All.

Leprosy Work in the Madras Presidency

THE following extracts culled from the Report of "Leprosy Work in the Madras Presidency, by Dr. J. Josiah Joseph, Chief Leprosy Officer, Madras, published in 'Leprosy in India'—July '35 will be of special interest to our readers:—

"Propaganda.—The Public Health Staff could not be depended upon for this work as they are fully engaged in other duties as vaccination, epidemic etc., and as the area of work allotted for each of them is very vast. Most of the propaganda work is done by the Group Leprosy Officers who are often sent to visit clinics that are declining in popularity and to do propaganda work in and around these centres to persuade patients to resort to treatment. Magic Lantern lectures, leaflets and personal talks are the chief methods employed to do this work. Infectious cases who should be isolated are advised either to go to the leper asylums or to isolate themselves in their own homes if facilities exist. Propaganda regarding the hygienic aspect of this work is not lost sight of, the people being told how a sanitary and hygienic mode of living can ward off leprosy.

(The B. E. L. R.A. leprosy film was often shown in a few districts and was greatly appreciated by the people who came in large numbers to see it. The Madras Public Health Department has also produced a leprosy film with a romantic plot wherein a young girl who had leprosy was treated by a doctor who finally married her. There is also a set of lantern slides for use

in propaganda work. Leaflets and posters are also used.

School Medical Inspection.—The School Medical Inspection by special Medical Officers has been stopped owing to financial stringency, and the Government did well to put an end to that system of inspection as it was purely superficial. A new scheme should be evolved whereby the student's health will be properly attended to and the special cases periodically examined. The Director of Public Instruction has permitted the Group Leprosy Officers to examine students in educational institutions for signs of leprosy and to give the necessary advice to the affected individuals. The following are the results of this inspection:—

	1931	1932	1933	1934
No. of Schools examined.	3	24	103	179
No. of Students examined.	600	3582	17276	23497
No. of detected cases.	1	20	191	271
No. of suspicious cases	...	...	...	20

Health Tit-Bits

Walking as an Exercise.—Professor John Fraser in delivering the valedictory address at the annual prize-giving of the Edinburgh School of Chiropody, said that in these days of mechanical transport the exercise of walking had certainly suffered, and in this respect we were probably less healthy individuals than those of previous generations. It was not generally realised how much ground was covered by walking, and figures had been obtained in America by mechanical means which showed that a housewife in her daily rounds covered about eighteen

These students were advised to take treatment or to be under observation by the medical officer in charge of the nearest leprosy clinic, but most of the students do not follow this advice. It seems to me that it is very necessary that the school authorities should insist that the active cases are treated regularly and the others are sent periodically for observation by trained doctor if they are to continue their studies, for one cannot say when a case in the quiescent phase will be stimulated into activity and become infectious. All leprosy workers are agreed on the importance of medical supervision of children with leprosy and it is considered by many that if the disease can be kept in check till puberty, the chances of its working havoc in later years are greatly reduced. This being so, it is very essential that students having the disease should be kept under careful treatment or observation."

miles, while a hospital nurse on an average day covered a distance of over twenty-one miles. Men and women were essentially walking creatures, and disabilities of the feet were one of the commonest causes for abandoning this health-giving exercise. He looked forward to the time when the menace of many foot disabilities would have disappeared entirely.—*British Medical Journal*, July 13, '35.

The Effect of Tobacco on the Foetal Heart During Pregnancy.—The foetal heart rate has been studied

in a series of women who continued to smoke a number of cigarettes during pregnancy. An augmentation of the cardiac rhythm (from 5—40 beats per minute) was constantly noted. The acceleration manifests itself from half a minute to a minute and a half after the cigarette is begun and persists five to ten minutes after the cigarette is finished.

Out of a large number of observations, in one alone was the result negative, and this in the case of a woman who had only absorbed a very feeble quantity of tobacco smoke. This is in favour of the opinion generally admitted that small doses of nicotine diminish the number of cardiac pulsations.

The abuse of tobacco in the course of pregnancy is inimical to the well-being of the foetus.—*Sontag and Wallace: American Journal of Obs. and Gyna.* Vol. 29, No. 1, Jan., 1935, Page 77, thr' "Medical World".

Fast Growing Babies may not be the best.—Parents proud of how fast their babies grow and baby specialists who prescribe foods, medicines and health procedures to have this same effect of rapid growth may take warning from a new view of the science of human growth and nutrition which has been gaining ground among specialists and now is indorsed editorially by experts of the American Medical Association. This new view is that young animals of any kind which grow most rapidly may not be the healthiest ones or destined to the longest lives but that such rapid growth is likely, on the contrary, to mean early death and premature old age. Gardeners are familiar with the fact

that plants forced to grow too rapidly do not live long and are likely to be unhealthy. In several series of experiments with rats and other laboratory animals, notably a series carried out under Dr. C. M. McCay of Cornell University, it has been found that animals fed so that they grow more slowly prove to live longer and to keep greater bodily vigor in old age. According to the Association's experts, a similar relationship between slow growth and long life in human beings was suspected centuries ago by no less an authority than Lord Francis Bacon, the distinguished statesman and essayist sometimes believed to have written the plays of Shakespeare. "It is apparent", the Editors conclude, "that some of the current tenets in the field of nutrition require reconsideration", so that the best rates of growth may be discovered for infancy, childhood and each of the other periods of human life.—Dr. F. E. Free, *The Week's Science*.—*The American Medicine*.

The Cost of Coffin Nails.—Under the title, "The American Standard of Dying", Katharine Kellogg discusses in *Common Sense* the cost of American funerals. It seems that Americans are not content with maintaining a so-called "higher", that is, more expensive standard of living than any other nation that now lives or ever did live, but must also maintain the same preeminence in the cost of dying. Half a century ago, the cost of a burial was small. Today, the cost of really respectable funeral is so considerable that the undertakers are able to report a volume of general business totalizing the enormous sum of \$400,000,000,00.

But this is not all; the florists and monument makers send bills amounting to \$ 100,000,000,00 more, or \$ 500,000,000,00 for the two major items of funeral-expense.

If this huge sum were expended in combating disease and cultivating health, the result would be a material reduction of the death rate and the saving of many thousands of lives.—*Good Health (U. S. A.)*

* * *

Misleading Information about Tea.

—The Salvation Army *War Cry* published in its issue for May 25 the following:

"You may drink all the tea you want without fear of its after effects, for it hasn't any.

"This interesting information was presented at the annual meeting of the American Chemical Society, held in Washington, D. C., recently.

"Tests were made on albino rats, whose nutritional functional requirements are similar to those of human beings. The results of the tests showed that a man might drink tea in the same ratio to his weight, without any ill effects. So if you weigh 150 pounds, help yourself to 43 cups of tea a day, and don't worry about the effects—at least thus say the scientists".

The effects of tea drinking on either rats or men can never be determined by chemical tests. The animal organism is a living machine, not an inanimate chemical compound. All that the tests referred to proved is that the immediate effects of tea drinking are not disabling, but the actual effects of a poison like tea are not indicated by the immediate results.

Metchnikoff showed many years ago

that the administration of small doses of a poison will after a lapse of months produce destructive changes in the body even when large doses produce no immediate toxic effects.

The effect of the particular poison of tea is largely shown in the nervous system. The nerves are at first excited, often in such a way as to give the impression of increased strength and energy, but this is entirely false. There is no increase in strength for the reason that the caffeine in the tea does not contribute to the production of energy in the body; in fact, instead of increasing the sum total of the body's energy resources, the effect of using tea or coffee is to lessen the body's store of energy by interfering with the body's recuperative processes, especially through sleep. The nerve centers accumulate energy like storage batteries. The effect of tea drinking is to interfere with this energy storing process, thereby doing great harm.

Trembling of the hands is another evidence of the injury done by tea or coffee. In some instances marked trembling of the hands occurs after the taking of a single cup of coffee. Horace Greeley, the great Civil War editor whose influence upon the public mind was greater, perhaps, than any other person except Abraham Lincoln, renounced the use of coffee because after drinking a single cup at night he suffered from trembling of the hands the next morning, sufficient, we suspect, to interfere with the use of his hands in writing, in which they were almost constantly employed during his waking hours.

One of the effects of tea is to cheer and exhilarate as do practically all intoxicants, producing a false sense of

comfort as do other narcotics while interfering with the nutrition of the nervous system and the accumulation of energy in the nerve centers. Tea is a poisonous drug and must be classed along with hashish, opium, and other "dopes".—*Good Health (U.S.A.)*

* * *

A Municipal Rose-garden.—In Topeka, Kansas, U. S. A., there is a wonderful municipal rose-garden containing about 15,000 rose-bushes, covering nine acres. It is equipped with flood-lights, and is open to the public night and day. There is but one sign in the entire garden. This, cut in the solid stone on one of the pylons of the main entrance reads, 'The honest need no watchman'—*The Treasure Chest.*

* * *

Municipal Ownership of Public Utilities.—Eighty-four cities, towns and villages in the United States are entirely free from local taxes as a result of owning and operating public utilities. Profits from utilities pay for municipal salaries, sending children to school, paving streets, operating parks, playgrounds and libraries, often with rates lower than elsewhere. One town in New York State has made enough money from its municipally owned electric plant to make all taxes unnecessary for the past four years. It also has large deposits in the bank.—*The Treasure Chest.*

* * *

Sanitation in Places of Pilgrimage.—Many of our places of pilgrimage in India are far from being clean. The dwellers there are often so desperately fatalistic that they forget to keep their own houses and

surroundings in a sanitary condition. What, then, to talk of the places provided for the sojourn of the pilgrims? They are the last word in ugliness. We are glad, therefore, that the Benares Municipality proposes to add to their existing bye-laws several provisions with the object of keeping *Dharmasalas* in a sanitary condition, the breach of such provision being punishable with fine. A keener civic sense generally follows in the wake of education, but till education spreads amongst the masses the necessity of provisions like the above will remain. We trust that the municipalities of other places of pilgrimage also will adopt similar measures.—*The Young Builder.*

* * *

New Vitamin K May Prevent too Easy Bleeding.—Failure of some people's blood to clot properly so that they bleed easily and dangerously, resembling the hereditary bleeder's disease called hemophilia, may be due to lack of a new vitamin, provisionally christened Vitamin K, according to letters to the London scientific periodical *Nature* from two research workers at the Biochemical Institute of the University of Copenhagen, Denmark, Dr. H. Dam and Dr. F. Schonheyder. The trouble first was observed in young chicks fed on diets lacking the supposed new vitamin. Adding to the food of the sick chicks very small amounts of hemp seed, kale tomatoes and certain other vegetables cures the bleeding disease at once, just as foods containing Vitamin C promptly cure scurvy or as other so-called deficiency diseases are cured by small doses of other vitamins. The richest source of the

new vitamin K yet found is fresh hog liver. It is possible to extract the vitamin from this hog liver but it has not yet been analyzed. In many of its properties vitamin K seems much like vitamin E, so-called sex vitamin necessary for animal reproduction and which is found chiefly in the oily germs of wheat seeds, but since the new Vitamin K seems not to exist in these wheat germs while the Vitamin E apparently exists only in tiny quantities in the chief source of Vitamin K in hog liver, the Danish investigators believe that the two vitamins cannot be the same. How important the supposed new vitamin will be in curing human diseases marked by bleeding has not yet been tested.—Dr. E. E. Free,—*The Week's Science*.—*American Medicine*.

Late Marriages Condemned.—Dr. Carl Holliday of the California college says that modern girls who won't get married until the men they pitch upon can afford to protect them with every modern luxury "are threatening to destroy our civilization" as marriages postponed until thirty or thirty-five cause a nervous strain which is undermining our efficiency". His advice to his girl students are to *patern themselves* after their grand mothers who "were satisfied with a mattress, a coffee pot, and a frying pan".—*The Sanatanist*.

Radio Programme

The following list of specific themes and dramatic treatments are not suitable for children's programs and are, therefore, forbidden in commercial broadcasts :—

1. The exalting as modern heroes, of gangsters, criminals and racketeers will not be allowed.
2. Disrespect for either parental or other proper authority must not be glorified or encouraged.
3. Cruelty, greed, and selfishness must not be presented as worthy motivations.
4. Programs that arouse harmful nervous reactions in the child must not be presented.
5. Conceit, smugness, or an unwarranted sense of superiority over others less fortunate must not be presented as laudable.
6. Recklessness and abandon must not be falsely identified with a healthy spirit of adventure.
7. Unfair exploitation of others for personal gain must not be made praiseworthy.
8. Dishonesty and deceit are not to be made appealing or attractive to the child.—Extract from *Journal of Iowa State Medical Society*, Vol. xxv, No. 7, page 351.

Show the way of health to your fellowmen

**HEALTH LECTURE SERIES
BOOKLETS IN ENGLISH
TAMIL OR TELUGU.**

Houses in relation to Health	As. 2
What to do before the Doctor arrives	2
School Hygiene	4
Water in relation to Health	2
Air in relation to Health	2
Health and Disease	2
Preventable Disease	2
Common Disease carrying Insects	2
Milk in relation to Health	2
Alcohol and its dangers	2
Personal Hygiene	4
Home Nursing	8
Food in relation to Health	2
First Aid in Child Birth	4
English	6
Canarese	6
Telugu	6

How happy could you make hundreds of fellow-beings by telling them in simple, choice, easy language, the broad principles of Health, and how to maintain it! With the aid of these booklets you can do effective propaganda and earn the blessings of your fellowmen. The booklets are cheap too.

SRI KRISHNAN BROS.
ESTD: 1899
CHEMISTS, DRUGGISTS AND SCIENTIFIC OPTICIANS
323, Thambu Chetty St., Madras

KRISHNA
— Compound Extract of —
SARSAPARILLA
with Iodides

**THE BEST
BLOOD
PURIFIER**

A valuable remedy specially prepared from the best Sarsaparilla obtainable combined with several other blood purifying drugs. Largely used in a variety of diseases, such as Syphilis (primary, secondary & tertiary) Scrofula, Eczema, Psoriasis, Lupus, Glandular affections, Chronic rheumatism, Pimples, Patches Old sores etc., & various skin diseases of a syphilitic nature. Rs. 2-8-0 a Bottle.

SRI KRISHNAN BROS. 323, THAMBU CHETTY ST. MADRAS



PLACE,
POWER,
EASE,
WEALTH,
and with it all

DIABETES!

What a sorry but awful picture? Yet that's the fact. This disease claims perhaps the highest toll in India, among the middle and upper classes. It baffled patients and practitioners. But no more shall it levy its toll, for

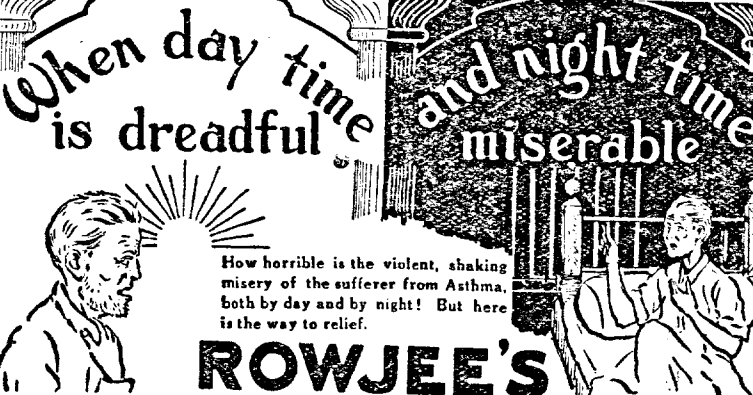
DIABIN VEGETABLE ANTI-DIABETIC COMPOUND

Rs. 4-8 per bot

SRI KRISHNAN BROS.
ESTD. 1899
CHEMISTS, DRUGGISTS AND SCIENTIFIC OPTICIANS
323, Thambu Chetty St., Madras

Cures every form of the disease and every symptom. Effective for all ages, at all seasons, and in all conditions. Wonderful results.

When day time is dreadful and night time miserable



How horrible is the violent, shaking misery of the sufferer from Asthma, both by day and by night! But here is the way to relief.

ROWJEE'S ANTI-ASTHMATIC MIXTURE

RELIEVES ASTHMATIC ATTACKS INSTANTANEOUSLY

This remedy contains some extremely efficacious drugs scientifically compounded, which have proved beneficial in asthmatic complaints. Composition open to medical men. It is no secret.

SRI KRISHNAN BROS.
ESTD. 1899
CHEMISTS, DRUGGISTS AND SCIENTIFIC OPTICIANS
323, Thambu Chetty St., Madras

First dose removes anxious symptoms and puts patient on the road to recovery.

Ask for full directions and diet recommendations. Also Asthma Powder and Cigarettes.

Price Rs. 2-8 a bottle.

The More You Scratch — the worse it goes

Whatever the form of ECZEMA, dry or weeping, the very first application of

ROWJEE'S ECZEMINE

soothes and cools the affected part, removes the itching, stops the oozing. Useful on any part of the body.

SRI KRISHNAN BROS.
ESTD. 1899
CHEMISTS, DRUGGISTS AND SCIENTIFIC OPTICIANS
323, Thambu Chetty St., Madras

Price Re. 1 a pot.



AN EYE for AN EYE

Serious injury to an eye necessitating its removal need not disfigure one's face. There is an eye for an eye available, which will help maintain the usual appearance. Artificial eyes, just as perfect in appearance as real ones are available in wide variety to suit all needs. Approval set on deposit of Rs. 25. Ask for full particulars.

SRI KRISHNAN BROS.
ESTD. 1899
CHEMISTS, DRUGGISTS AND SCIENTIFIC OPTICIANS
323, Thambu Chetty St., Madras

A Miracle-what?

Hair back on Bald Head!



Yes, good, luxuriant growth, glossy, beautiful scalp free from dandruff scurf eradicated, hair roots nourished and baldness cured. This is not a Scented Hair Oil, but a purely medicated one. Just rub a little into the hair roots every night, at bed time.

Price Re. 1 a bottle.

ROWJEE'S MEDICATED HAIR OIL

ESTD: 1899

SRI KRISHNAN BROS.

CHEMISTS, DRUGGISTS AND SCIENTIFIC OPTICIANS

323. Thambu Chetty St, Madras

MY HEALTH IS IN MY TEETH

Pearl teeth to laugh with, firm teeth to chew with, clean teeth to live with, can be had simply by using our

ANTISEPTIC TOOTH POWDER

and Astringent



ESTD: 1899

SRI KRISHNAN BROS.

CHEMISTS, DRUGGISTS AND SCIENTIFIC OPTICIANS

323 Thambu Chetty St. Madras

Price. As. 12. 3 tins Rs. 2.

Change TO BROWN or BLACK

Thanks to KRISHNA HAIR DYE



FROM GREY or WHITE

Buy it Today

Instantaneous Effect. Free from Unpleasant small or harmful result

PRACTICAL CHEMISTS HAVE PRAISED ITS POTENCY

ESTD: 1899

SRI KRISHNAN BROS.

CHEMISTS, DRUGGISTS AND SCIENTIFIC OPTICIANS

Rs. 2-8- a bottle

323. Thambu Chetty St, Madras

Soothing, Healing and cooling!

1-5 drops of ROWJEE'S OPHTHALMO



TO RELIEVE Fatigued Optic Nerves.

TO REMOVE Redness of the Eyes, Ophthalmia, Fleishy growth, Ulceration.

TO CURE Sore Eyes, Watering of the Eyes, Purulent Discharge etc

Guaranteed Harmless and Non-irritating

ESTD: 1899

SRI KRISHNAN BROS.

CHEMISTS, DRUGGISTS AND SCIENTIFIC OPTICIANS

323. Thambu Chetty St, Madras

Price. Re. 1

Know Thyself



You may know quite a lot about the inner wonders of the electric motor or the wireless mechanism, but what do you really know about the far more wonderful mechanism of your own inner being?

ATLAS OF THE HUMAN BODY AND ITS INTERNAL ORGANS

In this atlas you get a pictorial guide and survey of the Human body and its functions. This knowledge helps you in the pursuit of a healthy, happy life.

SRI KRISHNAN BROS.
ESTD. 1899
CHEMISTS, DRUGGISTS AND
SCIENTIFIC OPTICIANS
323, Thambu Chetty St., Madras

Price Rs. 2.

NATURE'S GIFT COMPOUND SYRUP OF FIGS

The gentle way to stimulate the impaired function of the stomach is to take this Nature's Laxative. It restores the real functions of the stomach, bowels and liver, and thus puts an end to Constipation—the dread malady of modern life.

Pleasant to take, and fit for persons of all ages.

SRI KRISHNAN BROS.
ESTD. 1899
CHEMISTS, DRUGGISTS AND
SCIENTIFIC OPTICIANS
323, Thambu Chetty St., Madras



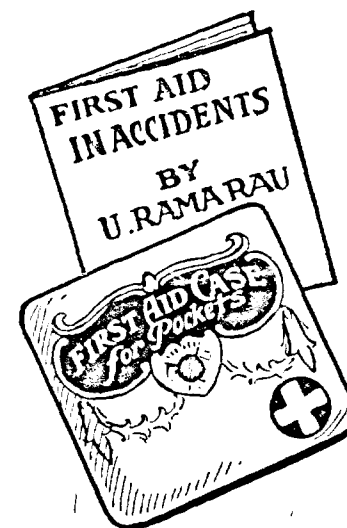
Price Re. 1-8.

Help! help!!- can YOU answer the call



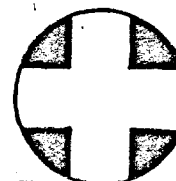
Many a man to his utter despair failed to answer the agonising call for help when a dear one was either bitten by a snake, run over by a motor car or enveloped by a fire simply because he did not know what to do. Perhaps his inability to answer the call meant the loss of life.

Every man and every woman should learn to render first aid and learning to render first aid is not at all difficult as it is made easy by Dr. U. Rama Rau's book on First Aid. In simple clear English Tamil, Telugu, Canarese or Malayalam it explains what to do. Equally useful is the First Aid Case which contains all the necessary appliances. Get these two to-day and learn to be a life saver.



Price of book
on First Aid
As. 12.
for any edition.

Price of First
Aid Case. Rs. 2.

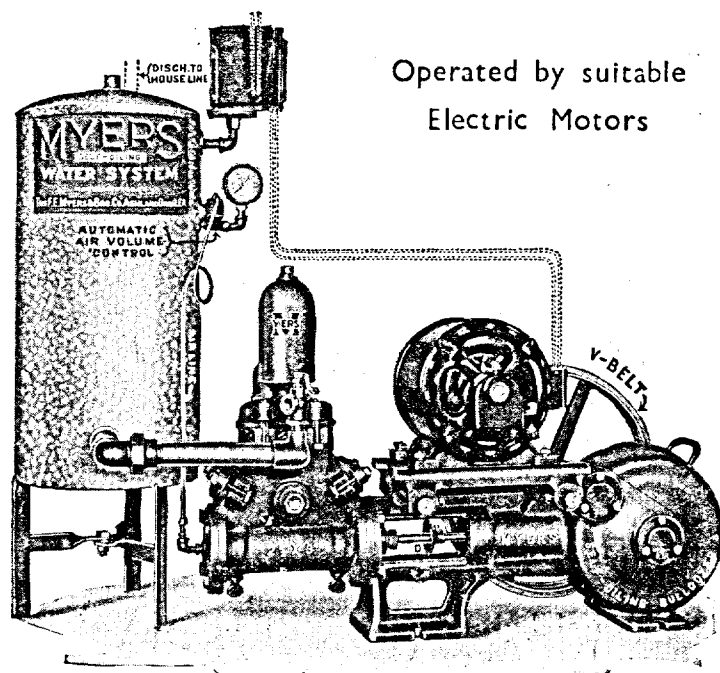


SRI KRISHNAN BROS.
323, THAMBU CHETTY ST., MADRAS

Pure and abundant Water Supply
Guarantees healthy life.

MYERS WATER SYSTEMS

Guarantee dependable Water Supply.



Operated by suitable
Electric Motors

Sizes and Types suitable for every requirement.

Also operated by
Hand, Oil Engines or Windmills.

Sole Agents in India

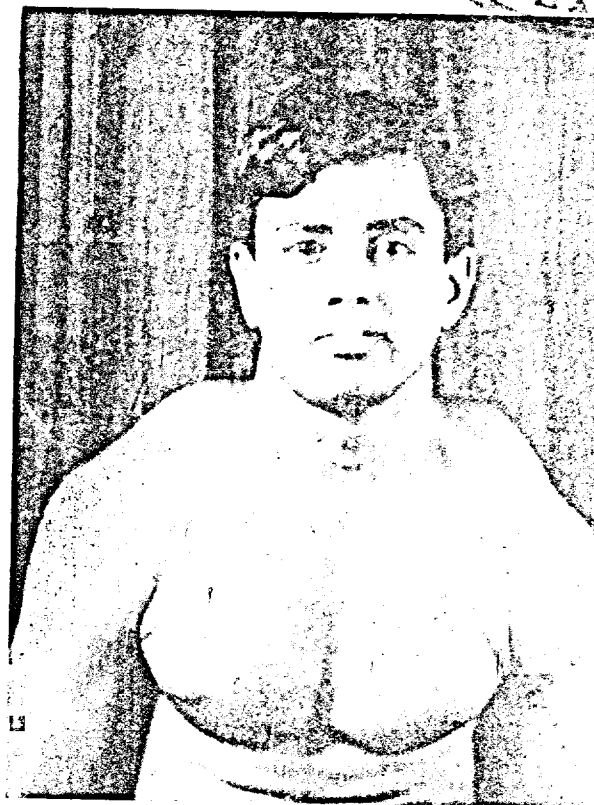
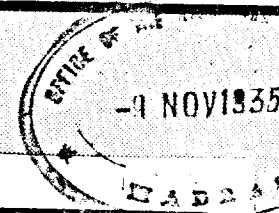
THE LIMAYE BROS., LTD.

1/173, Broadway :: Post Box 202 :: G. T., Madras.

Health

*A Journal Devoted to
Healthful Living*

Edited By Dr. U. Rama Rau & U. Krishna Rau, M.B.B.S.



Mr. C. V. VENKATACHALAM,
Member & Hony. Gymnastic Instructor, Y.M.C.A. Coimbatore.

Vol. XIII. No. 10.
Oct. 1935.

Select Contents

Rural Welfare in
India.

—Editorial.

Measles.

By Dr. L. Seshadrinathan,
M.B., B.S.

Ways and Means
to Longevity.

By Dr. K. Venkat Rau,

Breathing System
of the Ancients.

By R. Rajagopalan, B.A.

Price 2 as.

Office:

323, Thambu Chetty St.,
MADRAS.

THE UNITED INDIA LIFE ASSURANCE COMPANY, LTD.

Head Office: MADRAS.

Established in 1906.

Trustee: THE OFFICIAL TRUSTEE OF MADRAS.

Policies in force exceed Rs. 3 Crores.
Annual income exceeds Rs. 17 Lakhs.
Total assets exceed Rs. 69 Lakhs.

Among the distinguishing features of the Company are:—

Complete and absolute safety of investments;

Prompt and equitable settlement of claims;

Economical Management;

Moderate rates of premiums combined with attractive bonuses and

Efficient, sympathetic and prompt service to Policy-holders.

Complete information will be gladly furnished on application to the Head Office, Branch Offices, or the Representatives of the Company at the various places in our Country.

"UNITED INDIA ASSURANCE BUILDINGS,"

Sembudoss Street,
Post Box No. 281, MADRAS.

M. K. SRINIVASAN,
Managing Director.

CONTENTS

Editorial:—

RURAL WELFARE IN INDIA.

MEASLES. By Dr. L. Seshadrinathan, M.B., B.S., Coimbatore.

WAYS AND MEANS TO LONGEVITY. By Dr. K. Venkat Rau, Purasawalkam, Madras.

FOOD AND HEALTH The Circumstances under which We Live. By N. Sen, Resident Medical Officer, P. O. Sailo-Jherpara, Cuttack.

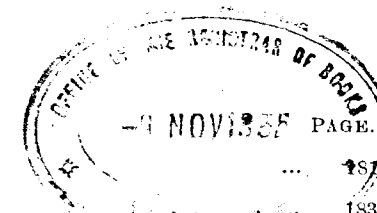
BREATHING SYSTEM OF THE ANCIENTS. By R. Rajagopalan, B.A.

THE ONION AS A SOCIAL PROBLEM.

DIET IN PREGNANCY.

HEALTH NEWS AND NOTES.

BOOK REVIEWS.



GONORRHOEA?



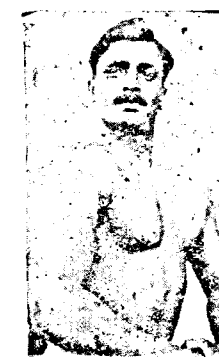
SURE CURE
GONO-KILLER
(REGISTERED)
SPECIFIC
for
GONORRHOEA
GLEET
AND
ALL SORTS OF
URINARY DISEASES

PRICE PER PHIAL Rs. 2-0-0.
V. P. P. Charges Extra.

Sole Manufacturers:—

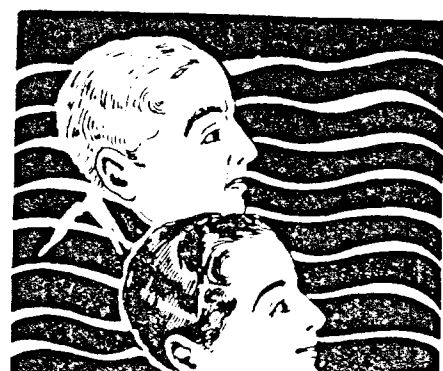
Dr. D. N. JASANI,
Girgaon Back Road, BOMBAY No. 4.

Robust Health in 10 Days.



More than One Hundred Thousand pupils of all ages enjoy ROBUST HEALTH and EVERLASTING STRENGTH by My Scientific System of Exercises! Why not you? If you are suffering from Nervous Break-down, Vital Depression, Constipation, Indigestion, or from any other annoying defect, so called incurable, I give you proof in 10 days that you can be cured of your malady. Write now for my FREE BOOK "My Scientific System of Graduated Physical Culture" which is fully illustrated. Send 2 annas stamp in a thick closed cover for postage with your full address to:

Prof. M. V. Krishna Rao,
Ootacamund (S. India.)



Don't be handicapped
by
**GREY
HAIR**

Grey Hair is a handicap socially and in business; the best way to overcome grey hair is with Krishna Hair Dye. This remarkable preparation has brought joy to thousands by colouring grey hair into a natural, youthful colour.

Krishna Hair Dye is safe to use. It cannot be detected. Adds life, lustre and youthful radiance to your hair. Get a bottle to day and begin to look years younger.

The safest of all hair dyes.

Rs. 2-8 per bottle.

**KRISHNA
HAIR DYE**

SRI KRISHNAN BROS
323 THAMBU CHETTY, ST. MADRAS

THE RAINBOW

A POPULAR FORTNIGHTLY MAGAZINE DEVOTED TO
ALL TOPICS OF GENERAL INTEREST.

Special Features:

1. Complete solutions and comments of almost all Puzzles Published in India.
2. Film News.
3. Photography.
4. Humorous short stories and Jokes, etc., etc., etc.

Single Copy—2 Annas.

Annual Subscription Rs. 3.

Those who enroll themselves as subscribers within the 20th March, 1935 need send only Rs. 2/8/-

WANTED:—Contributors, and Agents to sell this popular Magazine throughout India, Burma and Ceylon.

For Particulars apply to:—

The Manager, THE RAINBOW,
Washermanpet, :: :: MADRAS.

The Indian Insurance Journal

Editor:

B. BISWAS

The First Paper of its kind

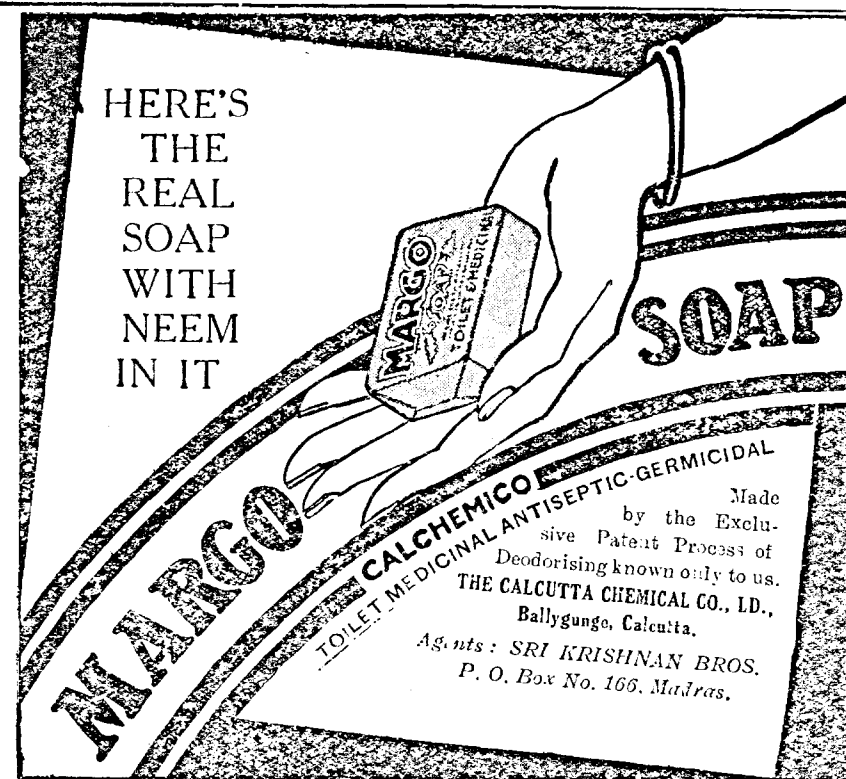
in India

Yearly Subscription:

Rs. 5 only.

For free Specimen Copy,
please write to:

The Manager,
The Indian Insurance Journal,
8, CANNING STREET,
CALCUTTA.



KRISHNA HAIR OILS
PERFUMED
JASMIN, RED ROSE OR WHITE ROSE

*Pure and sweet
scented.*

As 12 a Bottle
3 Bots Rs. 2/-

SRI KRISHNAN BROS
P.O. Box 166
Madras.

I use none, but them

ARYAVAIDYASALA

P. S. VARIER'S

Reliable Ayurvedic medicines with instructions and suitable prescriptions for all kinds of formidable diseases can be had from:

THE MANAGER,

Aryavaidyasala, Kottakkal, S. Malabar

Degrees! Books! Medicines!

H.L.M.S., H.M.B., H.M.D., Baidyaraaj etc. Homœo-Ayur-Unani free degrees by regular and postal tuition examination. No degree fee. Homœo-Materia Medica Rs. 5. Homœo-Practice of Medicine Rs. 4. Independent bread. Enclose 2 annas stamps:—

HOMŒOPATHIC INSTITUTE,
P. O. Mahuva (Kathiawar Dist., India.)

ALBUM OF

INDIAN CINEMA STARS



A fine collection of the Indian Cinema Stars that have appeared on the stage in the various Cities of India, during the past few years. While many have appreciated their music and extolled their histrionic talents, as visitors to the stage, they are apt to forget them and their beautiful countenances and actions while out of it. To such of them, this Album, on their tables, will serve as a constant reminder.

It is neatly printed on nice paper and priced cheap, only 0-12-0 per copy Post free. It is a new venture in the field of Indian Cinematography and for the very love of the art, every home should have a copy. Order your copy early, lest disappointment should overtake you through delay.

Special concession to subscribers of Health 0-8-0 post free if postage stamps are sent in advance.

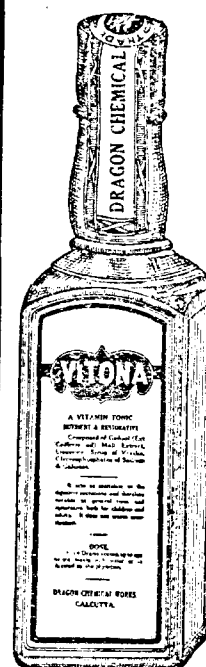
Copies can be had at:

SRI KRISHNAN BROS.,

323, Thambu Chetty Street,

::

G. T., Madras.



No more that nauseous Codliver Oil! Here is
VITONA.

Composed of Extracts of Codliver, Malt, Glycerhyza, Vasaka, Glycerophosphates of Sodium & Calcium—based on Sherry.

Vitona is a valuable tonic in convalescent state after prolonged illness. It increases appetite, regulates digestive system and rapidly improves weight and strength—Women need it particularly during the period of gestation and lactation. Contains Vitamin A. B. & D.

It is a palatable preparation of codliver oil without any bad smell. One part of Vitona is equal to one part of standard Codliver Oil.

Rs. 2-8 Postage Extra.

Ask for complete catalogue of our products.
THE DRAGON CHEMICAL WORKS, BOMBAY 7.
(Multani Mandir, Grant Road.)

Whooping Cough

Don't allow your Children to go on for 3 months helplessly struggling in the grip of a prolonged and suffocating Cough until it turns into Pneumonia and Asthma when you can cure them within 12 days with Dr. Pereira's Whooping Cough Specific. Rs. 2-12-0 per bottle.

Asthma Cure

If you have failed with other medicines, make a last trial and be sure to succeed, as has been the case with so many. Rs. 4-8-0 per bottle.

Antidiabetin

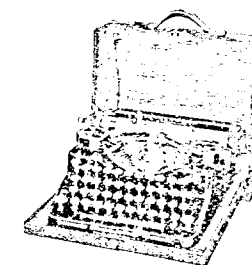
It's use for six months will restore you to your former condition, being free from your long standing Diabetes. Rs. 4-12-0 per bottle. PEREIRA & Co., Chemists, No. 20 Colicut (S. India).

Madras Customers Apply to:—

Mrs. C. REGO,

Opposite Railway Institute, Perambur.

UNDERWOOD PORTABLE TYPEWRITER.



The New Underwood Portable has the same keyboard as Standard Office Machines. It's sturdy & strong. In every phase of its construction—"It's more than a Portable; it's an Underwood."

Agents:

BYRAMSHAW & CO., LTD.,

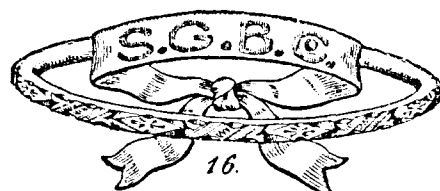
Mount Road, Madras.

Phone: 3645.

Telegram: 'MINORU.'

SCIENTIFIC GOLD JEWELLERY*Highly Appreciated by*

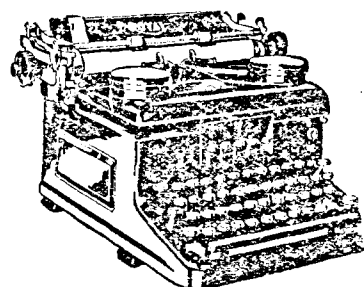
High Court Judges, Ministers
to Government and other
Eminent Public Men

*Full Catalogue Free.***The Scientific Gold Bangles Co., Ltd.**

Head Office:—43, Byraginatham Street.

Post Box No. 203,

MADRAS

**UNFAILING
ALIGNMENT**

Unlimited Speed,
Segment Shift,
Chromium Plating,
Dustproof Etc.

ROYAL**TYPEWRITERS**

Send for Literature:
ADDISON & CO., LTD., MADRAS.

**HAVE YOU EVER
USED OUR**

**CHHATRA-
PATI
SIVAJEE
MAHARAJ
BRAND PURE
ASAFOETIDA.**

It has a rare
distinctive
flavour &
taste of its
own. Many
Ayurvedic

and Unani Pharmacies also use it.

A half pound costs only Rs. 1-8-0.
V. P. Extra.

Laljee Godhoo & Co.,
Sowcarpet, Madras.

**MAKE MONEY!
from WATER!!**

**Buy Your
SODA FOUNTAIN
NOW.**

H. SASSEN & CO.,

15, Armenian St.

Post Box No. 163, Madras.

Health

*A Journal Devoted to
Healthful Living*

Edited By **Dr. U. Rama Rau & U. Krishna Rau, M.B.B.S.**

Published in

ENGLISH, TAMIL, TELUGU AND CANARESE.

Annual Subscription for any edition Rs. 1-8. Foreign Rs. 2. Post paid.

Editorial and Publishing Offices:—323, Thambu Chetty Street, George Town, Madras.

EDITORIAL**Rural Welfare in India**

THERE is no subject more engrossing the attention of the Government of India and the various political and social organizations in this country, at the present day than rural welfare. Mahatma Gandhi has started "the All-India Village Industries Association" with a view to place the Indian villages, now rapidly declining in health, strength and stamina, for want of sufficient nourishing food, on a sound economic basis. The Government of India have granted a generous donation of one crore of rupees for rural uplift, which, we trust, will be in the nature of a recurring grant in the future, until all the villages in India have reached the high watermark of sanitary and economic conditions obtaining in other civilized countries of the world. This grant has been distributed to various Provinces and Madras has got for its share 14 lakhs which the Provincial

Government propose to spend as under:—

Rs. 5½ lakhs for rural development and water supply schemes.

Rs. 4½ lakhs for village communications.

Rs. 3 lakhs for Bore-holer latrines in about a hundred villages in each district, which include Rs. 25,000 for Poonamallee Sanitary Scheme.

Rs. 50,000 for anti-malarial propaganda in four or five selected districts.

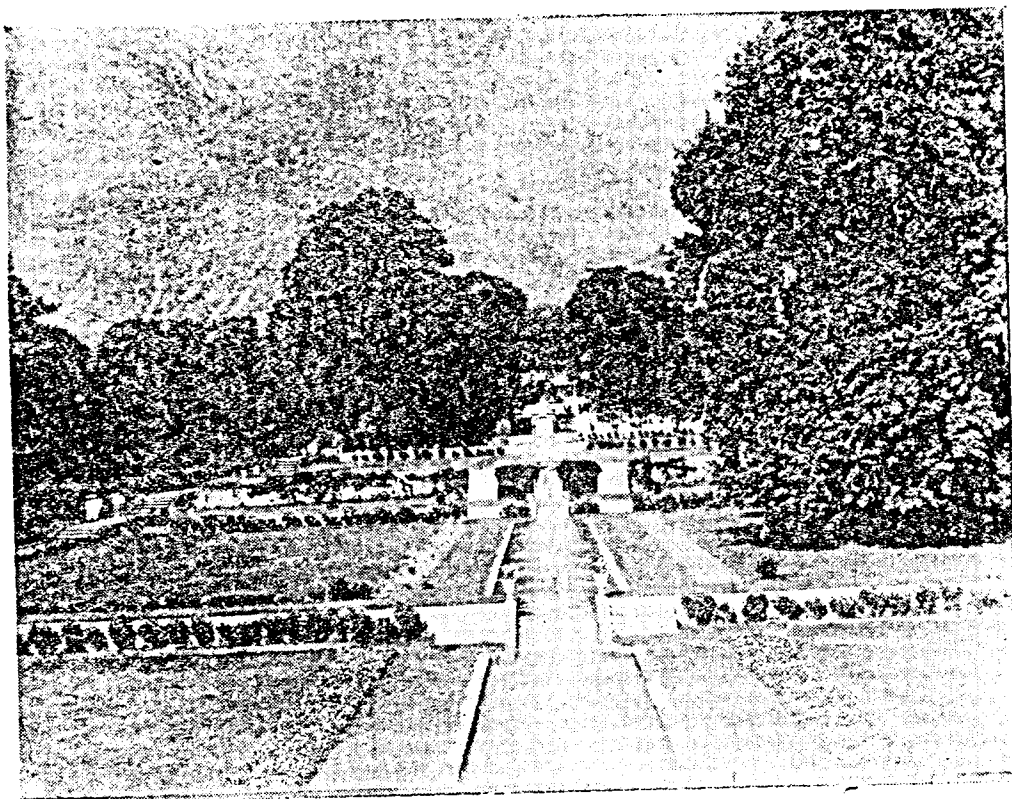
Rs. 50,000 for discretionary grants to District Collectors to be spent on rural amenities.

Now, it may pertinently be asked, what connection there is between our "Health" and "Rural Welfare". In fact, when in October 1934, exactly a year ago, we dwelt on the question of "Health in relation to unemployment" editorially, in our "Health", the question of its suitability for discussion in a Health Journal was seriously raised by one of our subscribers in the North of India and any amount of explanation on our part left him unconvinced. But, we have

no reason to regret our folly, even if it be considered as such, for, we find that the very scheme we adumbrated at the end of our article (page 196, Oct 1934 issue of Health) has been adopted by the progressive State of Mysore with effect from January 1935 and quite recently has been pressed by correspondents in the lay press on the

and economic measures, is a fit theme for our Editorial.

Coming to the subject proper, we are glad to note that a large slice of the grant is set apart for roads and water supply. These are the two essential requisites to make the villages happy, healthy and contented. With regard to the village roads, we are



*Parks and pleasure gardens are among the amenities of life.
Nishat Bagh (Government garden). Fountains, Cataracts etc.*

attention of the Madras Government. Our only apology, therefore, in introducing this or similar subjects in 'Health' is that we consider that anything that is conducive to the health of the people, either in the form of health rules and maxims, "Do's" and "Don'ts" or suggestions to the powers-that-be for the amelioration of the lot of the people, by sanitary, hygienic

and if each village provides the necessary labour free or cheap and if road-materials are obtained from the lowest tenderer, there will be a good deal of savings effected, which may be utilized for forming more roads.

Measles

By

DR. L. SESHADRINATHAN, M.B.B.S.

Coimbatore.

With regard to water-supply, there are already tanks in each village which might be repaired, deepened and reserved for drinking purposes. The old system of appointing a watchman to guard and protect these water-supplies may be revived and defiling protected water-supplies may be made penal. In places where no tanks exist, wells must be sunk and these wells must be provided with a pump, so that water might be taken through taps. Otherwise, there is danger of infected pots, utensils etc., being used for drawing water and the water-supply being thus contaminated.

The other amenities for which provision has been made must take the form of village schools. While the construction of Bore-hole latrines is a sanitarily good idea, we doubt if the villagers would avail themselves of those latrines.

Economy must be the watch-word in the execution of these works, and the villagers must be taken into confidence and their co-operation enlisted to make the scheme a success.

□

"With health, everything is a source of pleasure; without it, nothing else, whatever it may be, is enjoyable. It follows that the greatest of follies is to sacrifice health for any other kind of happiness, whatever it may be, for gain, advancement, learning, or fame, let alone, then, for fleeting sensual pleasures"—SCHOPENHAUER.

MEASLES, like Chicken Pox described in the July issue of this magazine is a highly infectious disease, and is one of the 'Ammals'. It is variously known in Tamil as 'CHICHILIRPU' (சிச்சிலிர்ப்பு) 'THATTU AMMAI' (தாட்டும்மை) or 'MANAL VARI' (மணல்வாரி). This, like Chicken Pox is common in childhood and occurs in epidemics. Infants in arms are generally not attacked, and one attack protects that person from further attacks. The contagion takes place through the air, dust, and usually by direct contact with patients. Like Chicken Pox, this disease is infective even before the rash comes out.

Except when present in an epidemic form, the beginning of the disease is passed off as a "mere cold" or a feverish cold which lasts for about three or four days. In very young children the first symptom to be noted may be convulsions, but generally the onset of the disease is gradual. There is slight fever at first, but gradually (especially if the child is a fair-skinned one) the face becomes reddish; there is running from the nose and eyes; the eyes are red: the tongue becomes coated with white fur; and the mouth and edges of the tongue and perhaps the throat appear reddish. All these symptoms and head-ache and fever last usually three to four days when they are aggravated; the child now appears very ill and the rash makes its appearance. It is first seen about the ears, temples and face, in the form of

small dull reddish raised spots tending to run in clusters and usually roughly crescentic in distribution. It causes the face to assume a blotchy appearance. The rash then spreads rapidly over the neck, body and the limbs, and is usually fully developed in two or three days. The face looks swollen and reddish, and the appearance of a "very severe cold in the head" is characteristic. This sort of picture goes on till the fifth or sixth day of the onset of the fever, when the temperature falls rapidly, and often causes hope and fear alternatively in the parents' minds. After the fall of temperature, the rash usually persists for two or three days, and then fades rapidly, but leaves the skin somewhat mottled by reddish-brown stains for some days afterwards, and it is often followed by slight branny desquamation—that is, separation of scales that look like fine bran. The characteristic mottled appearance of the rash has probably given rise to the name 'CHICHILIRPU' (சிச்சிலிப்பு) and the blotchy clustered appearance to 'THATTU AMMAI'. Generally, with the falling off of the rash the symptoms of cold and fever gradually subside, and the general condition of the child improves. But if the fever, "cold" and cough persist, then it is probably due to some other trouble like pneumonia, bronchitis etc. due to inadequate care of the child during its illness. In some cases a chronic cough may be left behind; in others a discharge of pus from the ears; and in yet others more serious conditions. Therefore, every case of Measles must be attended to by a physician from the beginning, or at any rate from the time the diagnosis of Measles has been made. Very

often a child of poor constitution is left a victim to tuberculosis of the lungs.

Measles is highly contagious in the stage preceding the appearance of the rash, as also when the rash is present, and there are cases known where the infection has been spread as late as three weeks after the disappearance of the rash. It would, therefore, be better to let a month elapse before the convalescent child is allowed to mix with other children. Measles is chiefly conveyed directly from the sick to the healthy, but it is sometimes carried through the medium of healthy persons attending on the sick by their clothing conveying the infective matter in saliva, nasal discharges and soiled clothing. Isolation of the sick child with Measles would be the ideal thing, but this is not practicable to any appreciable extent, especially in the middle-class family-houses, and impossible in the poorer homes, except perhaps by removing the child to an isolation hospital. But, wherever possible, all delicate children (and, of course, healthy children too) should be scrupulously kept away from the sick child. Apart from this, isolation to be effective, it must be put into practice quite early, not when the rash appears but at the very onset of the disease, when alas, it is often passed off for a cold and so regarded as anything but serious! If there is Measles in a house, the best thing the parents can do is to give the other children a holiday from school for at least two weeks from the onset of the fever, and one month must be allowed before the convalescent child from Measles returns to school.

In the majority of cases, an attack

of Measles is passed through safely, and the common knowledge of this fact leads many people to regard it lightly. This is a wrong attitude to take, as a few poor weak children are left prey to tuberculosis of the lungs and other such serious complications.

Treatment is best left in the hands of a qualified doctor, but nursing can be done by an understanding mother or other relative. Confinement to bed in a well-ventilated room, a liquid diet with plenty of fruit juices, abundance of cooled boiled water for the patient to drink are generally the only measures necessary in ordinary cases. If the child has photo-phobia, that is, sensitiveness to bright light, the room should be darkened, due allowance being made for proper ventilation. The eyes may be bathed twice or thrice a day with boracic lotion. The bowels should be kept free, and if cough is troublesome the attending doctor may prescribe a suitable mixture or steam-inhalation with Friar's milk.

balsam or some such measure. The patient should be kept in bed for a few days after the fever subsides. During the stage that the rash begins to fall, the skin should be oiled freely with carbolised oil, and warm baths with a mild antiseptic soap given daily. The mouth and nose should be carefully cleaned. The convalescence is the most important stage, and watchfulness and care during this stage may prevent serious complications.

Apropos my last article on Chicken Pox in the July number, where I had mentioned the case of a nursing mother being allowed to nurse her baby while she herself had Chicken Pox, it is interesting to record here, that true to my expectations and in accordance with the popular belief that 'Amma' does not enter the cradle, the baby has escaped the disease so far—and now it is nearly four months since the mother had the attack of Chicken Pox. Probably immunity to the disease was conveyed through the mother's milk.

THREE COLDS A YEAR IS WHAT VICTIMS MUST EXPECT

A person who is subject to colds may count on at least three colds a year, his "fall cold," his "winter cold" and his "spring cold," but has a good chance to escape other colds between these fateful dates, it is reported in a memorandum on colds prepared for the British Tuberculosis Council by Dr. Ernest Ward. The chief thing that helps one to catch cold, Dr. Ward believes to be individual susceptibility. Some people naturally catch cold easily. Others almost never catch cold. No one knows just why these differences exist. Heredity may be one cause. Diet, general health, habits of rest and so on also may be important. Statistics of most communities show that there are veritable epidemics of colds three times a year; the fall cold of October or November, the winter cold of January and February and the spring cold of April or May. For some reason which is also mysterious, either the cold germs are more active at these times or else the average resistance of the population is decreased. At these times, persons who naturally are susceptible are beset so powerfully by the many germs sprinkled around the neighbourhood that Dr. Ward considers it almost hopeless for these people to escape. At other times of the year, even these susceptible persons usually can protect themselves by keeping away from other people with obvious colds, by avoiding excessive chilling of the skin or excessive fatigue, and by taking regular doses of cod liver oil during the fall and winter. None of the popular methods of avoiding colds such as cold baths, special diets, vitamins, gargles or nasal sprays or douches, stir Dr. Ward to any enthusiasm,—Dr. E. E. Free, THE WEEK'S SCIENCE.

—THE AMERICAN MEDICINE.

Ways and Means to Longevity

By

DR. K. VENKAT RAO,

Purasawalkum, Madras.

"HEALTH is man's birth-right, and it is just as natural to be well as to be born". There is some truth, I think, in what one says "A man is just as much responsible for his ill-health as he is for his ill actions, and committing a crime against themselves, but often against their dependents and future generations". Longevity can be attained only by observing the rules of hygienic living which makes life more livable. It is the sacred duty



'The strong receive their strength...from Nature'

ARTHUR SANTELL, who claims to be the world's strongest youth, is seen here as he pulled twelve thousand pounds of automobiles and feminine loveliness at the Century of Progress Lagoon in Chicago. Santell does other remarkable feats to entertain visitors to the fair.

thus the same should become punishable under law". Dr. Pyle says that "persons who treat their bodies as they please and transgress rules of personal hygiene of which they should have a definite understanding are physical sinners, and they are not only

of an individual to take care of his own body. Mr. Emmerson says that the strong receive their strength as easily as the weak get their weakness from nature. Everything depends upon the co-operation that we offer to Nature.

It is a disgrace to be sick. It shows not only physical weakness but want of moral courage as well. It is the result of not heeding to the initial warning of Nature. Nature warns us by trifling symptoms. If we do not attach the required amount of importance to those warnings and continue to violate and transgress the laws of Nature, i.e. if we openly defy her, Nature retaliates as it were with her weapon-diseases.

Several factors go to confer long years of useful life. Longevity will be welcome, if the following definition of an ideal healthy life is visualised. Though there would be a certain slow change that amounts to ultimate deterioration, there should not be sudden failure of function of any organ, no notable discomfort in any part, no headache, no single sleepless night, no tinge of rheumatism and not even a day's work and recreation lost. This ideal though looks Utopian, can be attained if the laws of Nature are understood and faithfully followed. To such followers of hygienic laws, a period of 50 years from 30 will be the happiest one.

What is the span of life for an individual? One hundred and twenty years is considered the full number of years that one can attain to live. The common cause of death is accident, which term includes disease as well. In young age, many of the diseases are overcome by high power of resistance; but as age advances, there is poor resistance and many of the diseases brought about slowly and insidiously make their presence felt and known and, now the body is unable to repel the attack. Elimination and nutrition are the two important factors, the

proper balance of which confers health and longevity. Dr. Crew experimenting upon the plantarian, has conclusively proved how the life of that worm has been extended over twenty-eight times its normal span of life by what is known as "the starvation system".

What is it that Nature demands of an individual creature? She wants that it should propagate. After the period of fertility is over, she wants that they should soon give place to the new comers, by their disappearance. So, in the case of man after his period of fertility is over, i.e., from 25 to 50 years, she expects him soon to retire. So, what generally happens is Nature, as it were, plays a mean trick. The appetite, the satisfaction of which necessitates a large intake of food that was necessary for growth and propagation is retained even though he no longer now needs the same quantity of food, as growth and fertility have long ceased to exist. So, then, the excess of food that is consumed especially the carbohydrates and the hydrocarbons (fats) are stored as cumbersome fat in various situations, commencing from the abdominal wall, then limbs, etc. and ultimately reaching the vital organs such as, heart, liver, the kidneys, etc. This results in improper functioning of these organs, resulting in early death. The majority die before they cross the 60th year. That is, they dig their graves with their teeth, to quote an old Roman saying: Another Roman proverb declares that "Gluttony kills more than the sword" which, perhaps is not less true even at the present enlightened 20th century.

If we look at a person passed the age of seventy, we will find that he is

invariably lean with a spare constitution. He will never be stout. The centenarians are all of that stature.

The following factors, which, if rightly followed, will lead to perfect health and longevity will be briefly described, so as to give a stimulus for further study in those directions.

Food

That appetite is the guide for the right quantity of food that the body needs at past the age of fertility is highly fallacious, has already been briefly stated. It is as it were, Nature's weapon to remove the unwanted from her standpoint. Therefore, it is quite necessary to realise that the diet of an individual should be considerably reduced after the age of forty or forty-five. What that amount is and of what nature, is to be determined by individual wants paying attention to the nature of his work, the amount of exercise he takes, etc. But we can only make a general statement here. Carbohydrates and fat should be considerably cut down. A man's increase in weight between 25 and 50 years should never be more than 10 to 12 pounds. If on a certain regime of diet, the weight rapidly increases, both the food factors should be reduced in quantity. It is profitable to remember that fats and carbohydrates are fuel foods. No living cell or tissue can be repaired or created without the intake of protein. Fats and carbohydrates such as butter, lard, various fats, oils, sugar and starch, etc. contain no protein at all. They are pure fuel foods. No amount of them could suffice to build a single cell of living tissue. Their function is to be burnt in the body, supplying energy. So, if fats and carbohydrates are taken in

large quantity, some portion for example, very little of it, is utilised for the energy required. The remaining quantity is being deposited in the various parts of the body as fat. It may seem reasonable, therefore, to expect that this fat can be reduced by exercise without reduction in its intake. But, it is not so. Only a few ounces of fat can be reduced by such exercise; but even then, what happens is, after strenuous exercise one is believed to take more food, perhaps this excess of food intake is on the credit side. For example, the energy spent in taking a four miles walk can be replaced by a lump of sugar. A bulky man may immediately after strenuous exercise demonstrate with perhaps some pride, that his weight has come down by three or four pounds; but all this reduction barring for a trifling amount of calories of heat loss by combustion of fat, will be replaced by a tumblerful of water, as this loss is due to the water loss incidental to exercise. In what follows hereafter, I have to be a little dogmatic, in view of the shortness of time and space. It is important to remember that the best and the only way of reducing fat, as fat reduction is essential, is to cut short the intake of such fat producing foods. Periodical weighing and measuring the waist girth which is called the line of life will be a useful guide in the matter of increasing or reducing the intake of such foods.

Now, coming to the protein part of diet, we have already been told that no repair of a living cell or formation of new cells can take place without this protein. Abstention from protein will lead to starvation, anaemia,

destruction of the blood forming organs and speedy death. So, an adequate supply of protein is of paramount importance. What is that safe and essential quantity? It has been said by various people that 120 to 140 gms. of protein are necessary daily: but this is too much. For a normal person in good health, 40 to 50 gms. of protein intake is quite sufficient. A major quantity of this goes to form the red blood corpuscles. "The average life of a R. B. C. is estimated at 30 days, which implies that something over three ozs. of corpuscles, in the medium sized human body must be manufactured daily. As the R. B. C. contains 37 p.c. protein (Abderhalden), this calls for about 37 gms. of food protein as against 2 gms. maximum for waste of other body tissues."

"If we combine these figures, and take into account the gram or so of protein required to replenish the relatively scant companies of W. B. corpuscles, the analysis seems to call for about 40 gms. of protein to meet the daily needs of the body."

What are the dangers of excessive intake of proteins. It has been experimentally proved that a certain amount of protein as it is, finds its way into the circulation from the intestine, from food not fully digested. This is likely to occur if a larger quantity of protein is ingested. When a hearty meal is taken especially after meat food, a large number of white B.C. pour into circulation to handle the amino-acids. Some of the W. B. C. tackle the unbroken protein molecules. To these and to the R. B. C. which take up the by-products of protein digestion as effected by the W. B. C. and which are taken to the liver where they are

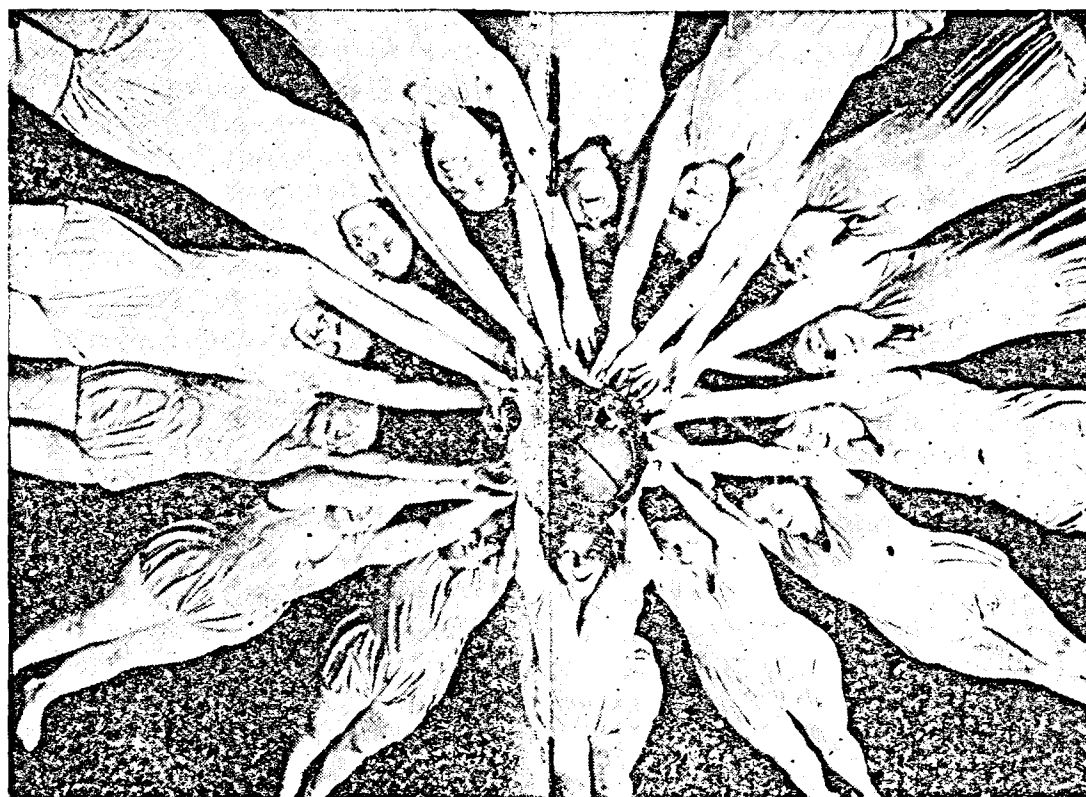
killed and the abnoxious material discharged through bile and kidneys, we owe our safety: so a large quantity of protein calls forth a large supply of these cells, which means too much strain for blood-forming organs. Excess of protein, therefore, results in a large production of blood corpuscles and free globulins and albumins in the blood stream. But the fluid becomes too thick to be pumped through the arterial system. All these happen when one side of the question is only considered. A certain amount of protein escapes digestion and goes to the large bowel where putrefaction takes place and obnoxious toxic materials are absorbed into the system. Among the recognised results direct and indirect of such poisoning are:—(1). Destruction of B. C. with resultant anaemia, simple or pernicious. (2) Impairment of the blood-forming mechanism which strikes at every vital organ. (3) Thickening of the blood with resultant high-blood pressure, damaged arterial walls and heart strain. (4) Varied types of impairment of liver (5) Disturbance of glandular functions, including stimulation of the thyroid whereby every cell in the body is made to work at abnormal speed. (6) Irritation and overstrain of kidneys (7) Menace to the brain directly from the stupefying effects of some of the poison and indirectly through impairment of the the arteries threatening apoplexy."

The destruction of the blood corpuscles and the impairment of the blood-forming mechanism amount to the removal of the chief defences against bacterial invasions. How to measure the quantity of the protein supply? The following is easily remembered

Eight gms. of protein are found in (1) ten ozs. of milk, or (2) one egg, or (3) one ounce (1 cubic inch) of lean meat or (4) one ounce of cheese. Five ounces of vegetables contain about four grams of protein. It is useful to remember that no amount of milk will lead to obesity. Five ounces of rice contain about 12 grams of protein. Almonds contain 21% of protein, *i.e.* five ounces contain 32 gms.

Fresh Air.—It is needless to emphasise the importance of proper breathing. We have been told time and again, that fresh air is essential for the maintenance of health, and that such supply of air will ward off many respiratory diseases. But it is nowhere stated that in addition, we should cultivate the habit of taking some breathing exercises daily so that for a time at least, all the air cells may fully expand with pure air and that a major portion of the residual air may be expelled. In normal breathing the apices and the remote basal portions of the lungs do not fully expand with air. Expiration is not deep and so there is always some residual air. It is essential that once or twice a day we should fully flush out the lungs with fresh air by the practice of breathing exercises. Dr. Fisher of New York says "A hundred deep breaths a day is a physician's recipe for avoiding tuberculosis". Dr. Neimeyer says:—"Contrary to the general opinion, that eating and drinking are the principal functions of life, hygiene maintains that air or the vital air, as the discoverer of oxygen calls it, is the real pabulum vitae." An empty stomach, an open place, and any convenient posture are the essential preliminaries for carrying on the breathing exercises. It is also useful to cultivate the habit of conscious breathing *i.e.* to take a few breaths even when we are through our work. Such a

simple act will supply the system with a large quantity of oxygen periodically. It will be advantageous to train the diaphragm, the bellows of the human system by taking a few diaphragmatic breathing, *i.e.*, by throwing out and drawing in of the abdominal wall during inspiration and expiration respectively.



Playing with the medicine ball is a good daily exercise. Exercise is as much necessary for women as for men.

Exercise.—This should be regular. It is better to cultivate the habit of taking daily some exercises which will give benefit to every part of the body, for a period of ten to fifteen minutes. This limitation of time is advisedly fixed, because if exercise takes more time, it will never be continued unless by a very few enthusiasts.

For professional men such fixing of time is quite convenient. This exercise should include some practices to train and develop the abdominal muscles, the right development of which will overcome constipation. Constipation at all costs should be avoided, as otherwise, the cess-pool below the gastric dining hall will bring

intelligent effort of a different kind from the effort involved in the work by which you earn a living. The point involved is the difference between work and play." The pursuit of hobby is not for money but for the joy it gives. It will keep you engaged when you reach the improbable years, *i.e.*, after you retire from your bread-earning work. If no such hobby is cultivated, the retired life will become lonely and tiresome. Many of the great discoveries resulted from hobby pursuit. Herschel, the Band-Master through Astronomy as his hobby, through a Telescope made by his own hands, discovered the hidden secrets of Heaven, and gave the world a new conception of the Universe. The preacher Priestly made Chemistry a hobby and became the discoverer of a life-giving gas, Oxygen. Wright Brothers were Bicycle dealers and during off business hours were trying to invent a machine that would fly and in this they ultimately succeeded. The American painter, Morse, who became the President of National Academy of Arts, invented electric Telegraph through his hobby. Then, there was a barber named Arkwright. He, through the pursuit of his hobby discovered Arkwright Spinning Jennies. These active hobby pursuits will keep the brain engaged. Old age will be quite welcome if such hobby rides are cultivated. The world may be greatly benefitted by new discoveries. If there

is nothing to keep one engaged, the other worries of trifling nature will make their adverse effects felt on the old system. So, then, this hobby riding indirectly helps to attain longevity in addition to making those improbable years bright ones.

Hobby Riding.—What is hobby? "A hobby is any kind of purposeful activity whatsoever, that involves definite and

Food and Health

The Circumstances under which We Live

By

N. SEN,

Resident Medical Officer, P. O. Sailo-Jherpara, Cuttack.

I

OUR body needs food mainly for two purposes. Firstly as fuel and secondly as the material for building up its own machinery. Or in other words it may be said that we require food:—

(1) To make our bodies grow when we are young.

(2) To repair and replace the daily wear and tear of body tissues.

(3) To provide energy for the process of living.

(4) To provide energy for physical and mental work.

And perhaps this food is the first necessity of man. If we judge carefully it can be clearly ascertained that most of our diseases are not original but are created by irregularity of diet and living. While this choice of food is governed by influences of a very different kind, it depends much on custom and palate and lastly on our pocket.

If we look back thousands of years we find that natural grown vegetables were the staple food used by ape-men or man-apes. With the gradual advent of civilization our food began to take finer forms. Was it for good or for bad? Do we get enough fresh food among our dietaries now-a-days? The town dwellers are more and more taking to preserved foods without the least hesitation whether those preservatives are really good for our health!

or how much of those preservatives can we consume? It has simplified our living no doubt but if we know definitely that it will do us no good we should not hesitate to refuse it.

As we have said we cannot lay the whole responsibility of discomfort to the account of microbes or bacteria. It is to a great extent our own affair. Our whole system is nothing but a machinery with a limit to work and limit to consume fuels. To eat, drink or smoke in excess must in the long run bring in repentance. Similarly less exercise than is required actually and over muffling are sure to bring in such disorders for which nature or microbe cannot be blamed. Three, four or five times a day we load our stomach *i.e.*, we stoke our inward engine. Why? To fuel them. But we should know definitely, are we fuelling them or fouling and choking the furnace with ash? Again, mortality statistics enlighten us much. They may be classified into two groups. Those dying from over-eating and those dying from under-nutrition. In richer classes it is almost an axiom that most of their diseases originate from the intestines only, due to injudicious over-feeding. While in the poorer classes there often arise such diseases due to deficiency of a certain substance in food which is necessary for life.

Let us come back to preserved foods. Preserved foods we find in the market

1935]

HEALTH

193

in several states of which the following are frequent:

- (a) Tinned with some liquids,
- (b) Dried,
- (c) Vacuum packed,
- (d) Preserved by chemicals,
- (e) Refrigerated or cold storage,
- (f) Salted.

Any way they are never good for health, specially those preserved with chemicals. Gradual accumulation of common legalised preservatives *e.g.* Boric Acid, Salicytic Acid, Benzoic Acid or Sulphur-dioxide in stomach are never good for health and often cause grave symptoms. Moreover many of our foods contain such essential things in them which though present in very minute form are of enormous benefit to our system. And this content of food which we call vitamin is totally destroyed in preserved foods, perhaps only except cold storage.

II

Apart from those preservatives we are also accustomed to many other artificial foods which have got a very faint connection with the natural source or none at all. The most predominating of this type is perhaps sugar. Sugarcane cultivation in Asia is perhaps the oldest. In the 17th century sugar was regarded as a luxury in Europe! And now? Keeping off molasses even the poorest villager is now after simplifying his diet by replacing it with sugar which not only does not contain any vitamin but in excess is harmful to our system. The average consume of sweet-meats and sugar in towns is nothing short of spreading diseases and microbes amongst the ignorant public.

Wheat comes next. Wholemeal wheat is rare now. Civilization has aided our tendency towards refinement and we always seek in market the perfect white flour to prepare our breads. The innermost mass of wheat grain is only starch and the market flour contains nothing but that, as its essential portion is repeatedly sieved off. Adulteration is easier in refined flour than in whole meal flour—so market white flour (*mytha—खुश*) apart from its starch contains chalks, stones etc.

In selecting our rice also we make similar mistakes. The more refined the rice—the less vitamin it contains. Ordinarily mill husked white polished rice is equal to white flour. In the refinery process its vitamin content is polished off and what remains is nothing but a mass of starch which has got nothing to do in the system but to fill our stomach. Whatever residue might have remained, we do away with it in the course of taking away the surplus water after the rice has been boiled.

Thus we see that the current tendency is to over simplify our diet but we hardly consider that this simplifying is nothing but to invite our own ruin.

III

Vitamins and their importance for the living are frequently spoken of now-a-days. But what are they? what do they do?

As the name implies (*vita*—life) vitamins are chemical substances of vital importance. They occur in food in very minute forms. It has been found that about 110 pounds of rice polishings contain only 6 grains of the

active principles. So it is quite evident how extraordinarily minute traces of such substances are responsible for regulating the physiological mechanism.

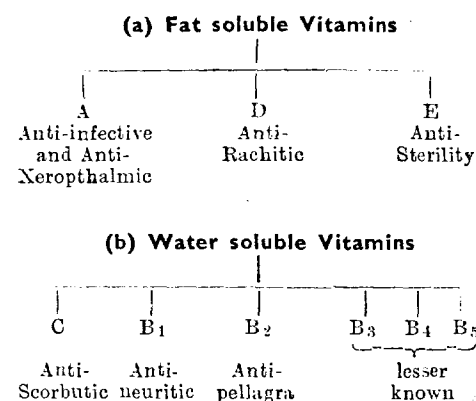
It was detailed in the sixteenth century that many people in the ships died of a typical disease due to lack of vitamins. Though vitamin was unknown at that time this much could be ascertained that the disease was perhaps due to the monotony of ship diet which composed only of hard tacks and salted meat. Vegetables were unknown in ships at that time. Sir R. Hawkins first detected it and he cured a crew with only lemon juice. Thus the value of lemon juice became established and by the end of the 18th century its use in British ships was made compulsory.

Similar is the case with Beri Beri. It was first detected in Japan navy in the latter part of the 19th century. Had not they used polished rice in their navy they would not have fallen victims to that dreadful disease.

We know that there is a certain substance contained in minute traces in fresh fruits and in actively living plant tissue which is necessary for

animal life. If it is absent or deficient in the diet the disease occurs. The freshness of food and the conditions of storage have much influence over the amount of vitamin present in edible substances. The more fresh and less exposed to heat the foodstuff is, the more vitamin it is likely to contain.

Uptill now 9 vitamins have been recognised and their importance known. But only six of them are familiar. They had no popular names and it was difficult to name them according to their organic compounds. Hence they have been named as: A, B₁, B₂, B₃, B₄, B₅, C, D, E. They may be divided into two groups (a) fat soluble and (b) water soluble.



(To be continued.)

HONEY IN THE DIET OF INFANTS

J. Comby thinks it much to be regretted that some prejudice appears to have arisen of late years against the use of honey in infant feeding. He extols the easy digestion of the abundant carbohydrate, calcium, and especially vitamin B content, while its iron phosphates are equally valuable. Then too it may often save the formation of an aperient habit from its laxative powers, and its ease of preservation is unrivalled among human food-stuffs. Comby quotes the diet of a sanatorium in Switzerland where an astonishing increase of body-weight and haemoglobin occurred in marasmic children fed exclusively on warmed (but otherwise untreated) milk to which a drachm of honey gradually increased to a half-ounce was added twice daily. In these cases there was never any question of tolerance. (PARIS: ARCHIVES DE MEDICINE DES ENFANTS)—MEDICAL WORLD.

Breathing System of the Ancients

By

R. RAJAGOPALAN, B.A.

BREATH is life. Life's last ebb is the gradual cessation of breath. When the breath stops, death has caught hold of the body, which in a few hours putrefies. Stinking smell emanates from the body which had been the pride of its possessor a few moments ago. As long as there is breath in the body, the man is said to live. As such, the importance of breath in one's life is great.

Without the elaborate paraphernalia of a laboratory, electrical devices and apparatus for measurements, our sages of the past have delineated a system of breath control which is being scientifically proved as very efficient by modern scientists and health culturists. They have calculated, taking for their standard a man six feet high with normal health, that the number of respirations in a day are 21,600 at the rate of 15 per minute. Further they have found out that breath is measurable in lengths, that normal exhalation is nine inches long and that the length of the breath varies according to the exertion undergone by a man. Thus one exhalation measures 15 inches while eating, 18 inches while walking and 22½ inches while sleeping and a greater length while doing physical exercises. It is said that a man's whole span of life can be measured into so many inches and prudent saving of breath elongates the life of a man. PRANAYAMA is the system of breath control by which the life's span is increased.

Our sages made a secret of every

knowledge. Their Sishyas were precluded from divulging their secrets and were warned of great sufferings and sin by violating their instructions. Thus this system of breath control was passed on from age to age through a very few disciples. As a fact only an insignificant section of the Indian nation, the Brahmins were practising Pranayama as one of their daily round of duties and it is not untrue that they were mentally sound. I say "were" because even the orthodox brahmin of present times does his Sandhyas mechanically without the practice of Pranayama and even the priests do not teach this science to boys entering Brahmacharya. As a result of this, intelligence and mental capacity of the Brahmin are being dissipated. Why did our ancient sages keep this science a secret? Modern men may think that it was due to their intolerance, ignorance and conservatism. However simple these secrets may appear, their reactions are great. By improper use great dangers may follow. The secret may pass on to an unscrupulous man with very unhealthy habits to his utter ruin. So they picked their men who are worthy to be trusted and instructed. All these to say that Pranayama, though simple to practise, must be done with great precautions.

Three essentials to practise Pranayama are good place, suitable time and moderate food. In the selection of place one should be careful to pitch upon a place hidden from public view

with pure and holy environments. Swami Vivekananda suggests a room set apart in the house, kept holy and pure, entirely for the use of the practitioner. Such a room keeps the mind free from unholy and filthy thoughts and also keeps the man free from unnecessary interference of prying children, friends and relatives. As regards time for the commencement of Pranayama, Spring and Autumn are said to be the best out of the six seasons in a year. These correspond to March and April, September and October months according to the English Calendar.

The next aid to Pranayama is moderate food. Nutritious food is essential and condiments must be avoided. "Easily digestible, agreeable, cooling and sweet food to nourish the elements of

the body" should be taken. Acid and pungent foods must be avoided. Green and fresh leafy vegetables, wheat chappatis, unpolished rice and milk are good. Food should fill up half the stomach and water one fourth. The rest should be kept empty for the passage of air.

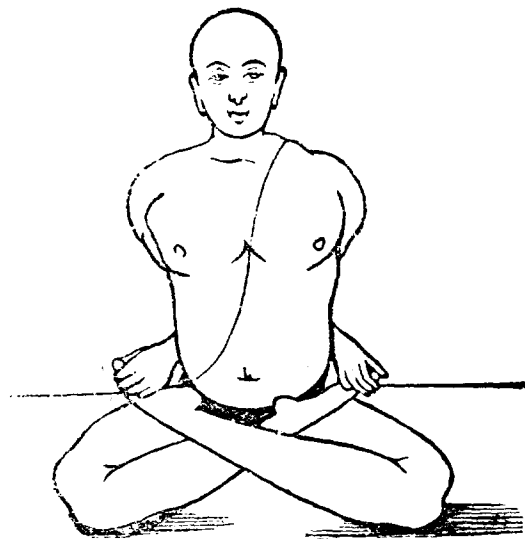
Early morning baths, fasting and physical strain are to be avoided. Besides these it is said that "nadis" (nerve vessels) must be cleaned. There

are two ways of cleaning, one is mental cleaning by good thoughts and relaxation; the other is physical cleaning by "dhautis" as related in my previous article.

The next important precaution is the sitting posture. Asanas are given for doing pranayama. Padmasan and Swastikasan are said to be the best. The back should fall in line with the neck and one should sit erect so that no strain is given to the "Sushumna Nadi" or the Spine, which in this posture hangs freely.

Now about the Pranayama proper. Three processes are undergone in Pranayama which in the language of the Yogins are: Puraka or inhalation, Kumbaka or retention and Rechaka or exhalation. A ratio of 1:4:2 should exist between Puraka, Kumbaka and

Rechaka. Again there are three degrees of Pranayama, the lowest, middling and highest. The lowest kind runs in the ratio of 12 counts: 48:24; the middling in the ratio of 16:64:32 and the highest in the ratio of 20:80:40. The effects of these are said to be different. While practising the lowest the body perspires; the middling causes quivering of the spine and the highest causes levitation, that is the body is lifted from the ground. It is



Padma Asana

said that the highest Pranayama causes a man to jump about like a frog. These effects are said to occur only in the initial stages and the practitioner is not to lose courage or get alarmed.

Pranayama are of different kinds. The effect of each one of them is different as they differ in the technique. While 'Suryabeda' warms the body, 'Sitali' cools it. In 'Sahita' and 'Bastrika' the breathing is stomachic. In 'Ujayi' and 'Brahmari' the exhalation is done through the mouth. 'Kevali' is an advanced stage in Pranayama. Here it is Kumbaka throughout. As no breath is spent this is said to give eternal life to the practitioner. To learn these kinds of pranayama it is necessary to seek the personal help of an expert and a little change in their technique or overstrain causes alarming effects such as bleeding, mental defects etc. *

As a means of exercise for the lungs Pranayama is the best. Kumbaka is a difficult stage in Pranayama and it is during Kumbaka that the spiritual energy is awakened and the practitioner attains realisation. Kumbaka gives the strength of an elephant to the practitioner and we have heard of yogis, slim and puny for all appearance, breaking chains, stones and performing such strong men feats. As regular habits and nutritious food are essential Kumbaka should not be practised haphazard. Lay practitioners may do well to leave this portion of

* For the guidance of readers I give below a few institutions in India which give instructions in Yogic culture:—Swami Kuvalayananda is running an institution "Kaivalyadhama" at Lonavla. Sri Yogendra runs one in Bombay. In Ambathur near Madras a Young institution advocating Yogic Health culture is being run by Swami Yogananda, a disciple of Swami Kuvalayananda.

Pranayama and do inhalation and exhalation only. It is not necessary to repeat "Om" even and instead one can count the period of inhalation and exhalation to maintain the proportion of 1: 2. The following form of pranayama is simple and is advocated by the Yogic system of Physical culture.

Inhale through the left nostril and exhale slowly through the right nostril and then alternate. The posture to perform this should be an erect sitting posture in Swastik or Padmasan. Six times in the morning and six times in the evening are good. Pranayama can also be performed every three hours even, when the mind is calm.

The effects of pranayama are many. Diseases of the lungs are cured. Spiritual energy is roused. Mind is calm and the brain power is increased. Face is bright and happy.

The Onion as a Social Problem

In the laboratory of applied physiology at Yale University, H. W. Haggard and L. A. Greenberg have been trying to find why an alliaceous odour persists in the breath after eating onions or garlic. It is generally supposed that, like ether, alcohol, and acetone, the essential oil of onion passes into the blood stream and is aerated from the blood in the lungs, so passing into the expired air. Alternative possibilities are that these oils are secreted into the saliva or that the smell comes from the stomach by way of the oesophagus. Haggard and Greenberg will have none of these hypotheses, and they seem to produce conclusive evidence in favour of their own explanation. Their initial

experiment was to give 1.5 g. of raw garlic, chewed and swallowed in the ordinary way and followed by the usual odours for a day or more. The same person then took the same quantity chopped in small particles but enclosed in gelatin capsules. No smell whatever was detected in the breath, except once when the subject belched three hours after taking his dose. The investigators thence passed to quantitative tests, where we need not follow them. But all the results go to show that they are right in thinking that the continuing smell of onions or garlic in the breath arises solely from particles retained in the mouth. These particles cannot be completely removed by mechanical means; to brush the teeth and tongue, to wash the mouth with soap and water or even with a 30 per cent. solution of alcohol, will not deodorise the breath. Haggard and Greenberg however are able to propose a remedy which is in fact effective namely, the rinsing of the mouth with a solution of chloramine, which liberates free chlorine in the mouth and so quickly and completely removes the offending odour. They suggest that many cases of foul breath from other local causes are probably amenable to the same simple treatment, and we hope this may be so. It is salutary, however, to remember the story of the American millionaire who, stimulated by advertisements, spent a large sum on a cure for halitosis; only to find afterwards that his friends did not like him any-way.—*The Lancet*, 10th Aug. '35, Page 316.

Diet in Pregnancy

DIET should be ample but not excessive. Good quantity of milk should be taken. Sufficient carbohydrate must be taken for neutralization of fatty acids, maintenance of normal alkali reserve and for helping general nutrition and foetal growth. Proteins and fats must be low as excessive intake will produce toxic substance. Eggs should not be taken more than one a day. Mild exercise such as walking down two miles a day is also recommended.

Toxæmia of Pregnancy is mainly due to vitamin deficiency. The foetus, a true parasite, robs the mother of important substances of which she has an inadequate supply for her own needs. Food itself requires vitamins for full assimilation. A high protein diet requires more vitamins B and D than a mainly carbohydrate diet. Deficiency of one Vitamin interferes with the action of the others. Pregnancy requires an increased intake of all vitamins.

Administration of calcium during pregnancy is necessary to maintain the mother's calcium storage to satisfy the requirements of the foetus in the last month of pregnancy and with the supply of calcium there should be a supply of phosphorus as well. Milk is the best source of calcium and at least 2 pints must be given a day. Other sources are cheese and green vegetables. Eggs for phosphorus and vitamin D in the form of cod-liver oil for calcium metabolism must be used.

Addition of iron in the form of iron and ammonium citrate, liver extracts and marmite (autolysed yeast) will easily solve the problem of anæmia of pregnancy. (From a discussion at the Royal Society of Medicine).—*Clinical Digest*, Page 103 for July '35.

Health News and Notes

The utility of beard.—Dr. Charles Hooper, Coeur d' Alene, Idaho, U.S.A. writes as follows:—

A writer advocates the use of the electric needle to eliminate the beard, and so save the large amount of time spent in shaving.

Why this horror at thought of a beard? Men let hair grow on the head, why not let it grow on the face? A man is ashamed of a bald spot on his head; yet he makes his entire face bald, and shamelessly deprives himself of a beard, the symbol of manhood.

A beard or moustache gives strength, character, individuality, and distinction to face and bearing, and marks the difference between man and woman. In their hearts women like moustaches and beards, and secretly admire and respect bearded men more than they do smooth-faced men. Women affect to dislike moustaches and beards simply because style—woman's master—has placed the beard under a ban. Hair about the nostrils and mouth strains out harmful dust and germs. A beard protects the throat from cold.

The moustache and beard are coming back. With them will come back man's old authority over woman. No wife ever got a divorce from a bearded patriarch. A bearded man tries to live up to his beard. He is dignified, as becomes a man. Why should a full-grown man have a smooth face like a boy or a babe?

The good Lord made the moustache and beard because he meant men to wear them. Those who make fun of a

beard make fun of Jesus Christ who wore a beard.

Fine Specimens of Humanity.—

The Russian peasant of the Steppes and Siberia is perhaps as good a specimen as any of the qualities attributed to the joys (or otherwise) of monodieting. Vegetables, wheat, oats, and barley are their principal foods and their drinks are made from cereal extracts. The Cossacks of Russia are amongst the finest and hardiest in the world—a fact attributed to their diet and the extreme conditions under which they are trained.

The Zulus, the Sikhs, and other Asiatics are to be numbered, physically, amongst the finest races, all of whom are restricted to what amounts to a mono-diet by the customs of their tribes. It is a well-known fact that, until the "white" man introduced his vices, the Kaffirs took a foremost place for physique and endurance. The female "uncivilised" Kaffir, for instance, is capable of covering vast tracts of territory, carrying a heavy load over rough country, with no food. Kaffirs practically live on what is known as "mealies." The Kaffirs are (or were) known to the discerning as "bronze Greek gods."—*Extracted from 'Health for All'.*

Living on curd only—

Srimati Sabitri Rani Devi of Ranghat, Naida, said to be about 25 years of age, is living on half a seer of curd daily for the last 14 years. She has no taste for rice. If however she would take even a small quantity of it, she cannot retain it and

ILL
L: 5m 21, 10 2 40 NS 13. 7

Know Thyself



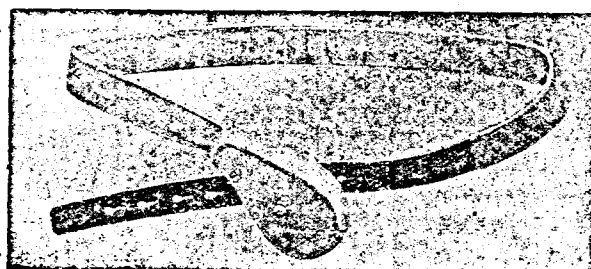
You may know quite a lot about the inner wonders of the electric motor or the wireless mechanism, but what do you really know about the far more wonderful mechanism of your own inner being?

ATLAS OF THE HUMAN BODY AND ITS INTERNAL ORGANS

In this atlas you get a pictorial guide and survey of the Human body and its functions. This knowledge helps you in the pursuit of a healthy, happy life.

SRI KRISHNAN BROS.
ESTD. 1899
CHEMISTS, DRUGGISTS AND
SCIENTIFIC OPTICIANS
323, Thambu Chetty St., Madras

Price Rs. 2.



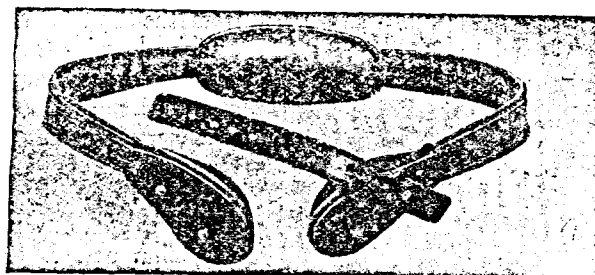
Trusses for Hernia

We have a large assortment of various sizes for infants and adults.

PRICE

Leather, Single Rs. 6
Do Double Rs. 12
Vulcanite, Single Rs. 10
Do Double Rs. 20

Booklet how to measure for and fit up a truss for hernia will be sent free.



SRI KRISHNAN BROS., 323, Thambu Chetty St., MADRAS.



Rowjee's Anti-Asthmatic Mixture is made from drugs well-known for their curative properties. It does not harm the heart or make you feel weak and nervous.

Within a few minutes after taking Rowjee's Anti-Asthmatic Mixture, breathing becomes easier; choking sensations and gasping stop; wheezing and breathlessness are overcome and you once more feel the joy of easy breathing.

ROWJEE'S ANTI-ASTHMATIC MIXTURE

Price per bottle Rs. 2-8 only.

Write for full particulars as to diet etc.

SRI KRISHNAN BROS.
323 THAMBU CHETTY ST. MADRAS



CLEAN AND WHITE TEETH

If you want whiter, cleaner teeth, begin using Krishna Antiseptic Tooth Powder. It removes all stains and polishes the teeth in a harmless manner that leaves them sparkling.

Being all-powder, Krishna Antiseptic Tooth Powder contains nothing that will injure the gum. It is free from grit and cannot scratch the enamel. In addition, it is a great neutralizer for acid mouths. It leaves your mouth, refreshed and your breath sweet and pure.

ANTISEPTIC and Astringent TOOTH POWDER

Price per tin As. 12. 3 tins Rs. 2.

SRI KRISHNAN BROS.
323 THAMBU CHETTY ST. MADRAS



ECZEMA IS CURABLE IF YOU USE ECZEMINE

All persons suffering from eczema and other skin troubles can get completely cured by using Rowjee's Eczemine. Almost as soon as you apply it you will feel it soothe and cool the inflamed skin and within a very short period, the eczema that was once thought incurable, has completely vanished.

Stop wasting time and money on ineffective preparations—use Rowjee's Eczemine—the one sure and safe treatment for all forms of eczema.

ROWJEE'S ECZEMINE

Re. 1 per pot.

SRI KRISHNAN BROS
323 THAMBU CHETTY, ST. MADRAS



WELCOME NEWS TO ALL DIABETICS

Don't suffer in silence any longer take a course of Diabin and get rid this of dreaded disease once and for all time. Diabin may be taken by persons of all ages and conditions. Its beneficial effects will be apparent by a few days use and if continued for some time, your health will be completely restored.

DIABIN

VEGETABLE ANTI-DIABETIC COMPOUND

Write for full particulars
as to diet etc.

Price per bottle Rs. 4-8.

SRI KRISHNAN BROS
323, THAMBU CHETTY, ST. MADRAS

Show the way of health to your fellowmen!

HEALTH LECTURE SERIES BOOKLETS IN ENGLISH TAMIL OR TELUGU.

Houses in relation to Health	As. 2
What to do before the Doctor arrives	2
School Hygiene	4
Water in relation to Health	2
Air in relation to Health	2
Health and Disease	2
Preventable Disease	2
Common Disease carrying Insects	2
Milk in relation to Health	2
Alcohol and its dangers	2
Personal Hygiene	4
Home Nursing	8
Food in relation to Health	2
First Aid in Child Birth	4
English	6
Canarese	6
Telugu	6

How happy could you make hundreds of fellow-beings by telling them in simple, choice, easy language, the broad principles of Health, and how to maintain it! With the aid of these booklets you can do effective propaganda and earn the blessings of your fellowmen. The booklets are cheap too.

SRI KRISHNAN BROS.
ESTD. 1899
CHEMISTS, DRUGGISTS AND
SCIENTIFIC OPTICIANS
323, Thambu Chetty St. Madras

**Soothing
Healing
and cooling**

1-5 drops of

**ROWJEE'S
OPHTHALMO**

TO RELIEVE
Fatigued Optic Nerves.

TO REMOVE
Redness of the Eyes,
Ophthalmia, Fleasy
growth, Ulceration.

TO CURE
Sore Eyes, Watering of the Eyes
Purulent Discharge etc
Guaranteed Harmless and Non-irritating

SRI KRISHNAN BROS.
ESTD. 1899
CHEMISTS, DRUGGISTS AND
SCIENTIFIC OPTICIANS
323, Thambu Chetty St. Madras

Price. Re. 1

NATURE'S GIFT / COMPOUND SYRUP OF FIGS

The gentle way to stimulate the impaired function of the stomach is to take this Nature's Laxative. It restores the real functions of the stomach, bowels and liver, and thus puts an end to Constipation—the dread malady of modern life.

Pleasant to take, and fit for persons of all ages.



SRI KRISHNAN BROS.
ESTD. 1899
CHEMISTS, DRUGGISTS AND
SCIENTIFIC OPTICIANS
323, Thambu Chetty St., Madras

Price Re. 1-8

A Miracle-what? Hair back on Bald Head!



Yes, good, luxuriant growth, glossy, beautiful scalp free from dandruff scurf eradicated, hair roots nourished and baldness cured. This is not a Scented Hair Oil, but a purely medicated one. Just rub a little into the hair roots every night, at bed time.

Price Re. 1 a bottle.

SRI KRISHNAN BROS.
ESTD. 1899
CHEMISTS, DRUGGISTS AND
SCIENTIFIC OPTICIANS

323, Thambu Chetty St., Madras

What Will You Do In An Emergency

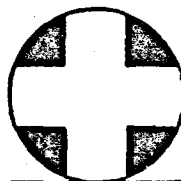
Supposing you saw your brother, a friend or even a stranger knocked down by a motor car; bitten by a snake or enveloped in a fire, will you be able to save him by rendering first aid or will you be one of those who just stand and look on helplessly? Immediate assistance has been known to have saved many lives and this is exactly what Dr. U. Rama Rau's book on First Aid teaches you in a simple and easy way.

The book is available in English, Tamil, Telugu, Canarese and Malayalam and can be easily mastered by any one who knows to read. Equally useful is the First Aid Case which contains all the necessary appliances.

Price of book on First Aid
As. 12.

for any edition.

Price of First Aid Case
Rs. 2.



Get these two and learn to be of help in an emergency.

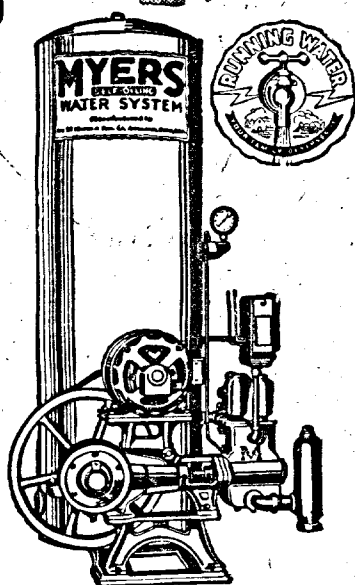
SRI KRISHNAN BROS.
323, THAMBU CHETTY ST., MADRAS



LET WATER DO THE RUNNING

Think how many times a day water is needed in and about the house. Think how much more you would get done if you didn't have to carry every drop.

Today you can buy dependable Myers Water Systems at economy prices. Install yours at once while you can make a big saving.



Sole Agents in India:

THE LIMAYE BROS., LTD.

1/173, Broadway :: Madras.