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magazine

Vol. XVIII

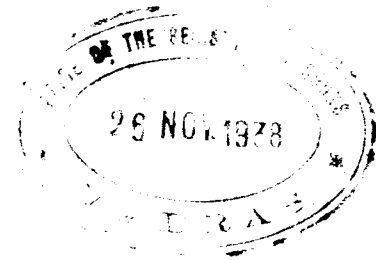


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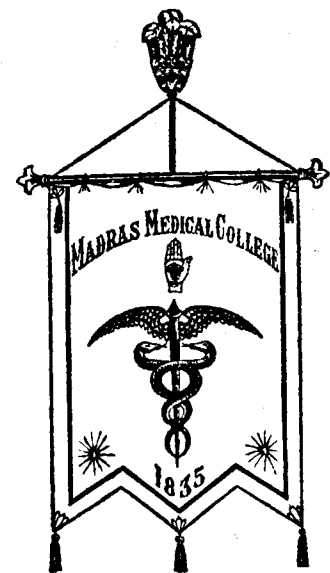
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Vol. XVIII

No. 1.

OCTOBER, 1938.

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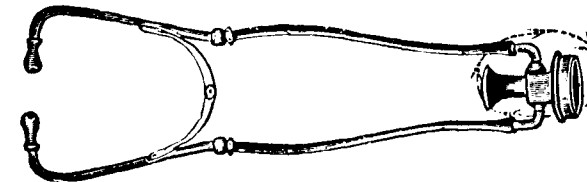
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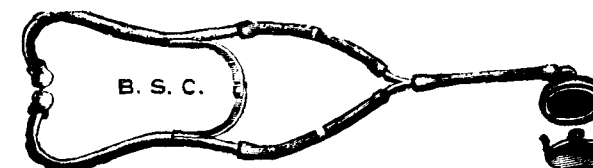
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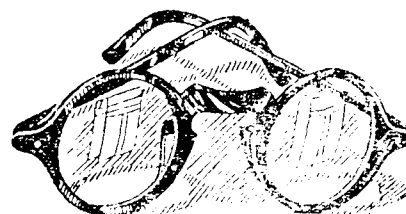
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OCTOBER 1938.

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The Madras Medical College Magazine.

Vol. XVIII.

October 1938.

No. 1.

CONTENTS.

Page

1. THE DIAGNOSIS OF MALNUTRITION IN SOUTH INDIAN SCHOOL CHILDREN

By R. Passmore 1

2. OBSERVATIONS ON THE TREATMENT OF TYPHOID

By Capt. R. L. Haviland Minchen, I.M.S. 4

3. A DREAM

By "Kay" 7

4. A PLEA FOR THE WIDER USE OF EMETINE IN THE TREATMENT OF CERTAIN TYPES OF PNEUMONIA

By Lieut. D. H. J. Nicholas, M.B.E., I.M.D. 10

5. A CASE OF TUBERCULOSIS OF KNEE JOINT

By N. Rangavadivelu, M.B.B.S. 12

6. A CASE OF UTERUS BICORNUATE ET. BICOLLIS

By S. G. Rajagopal, Final Year Class 14

7. HERE AND THE HERE-AFTER

By "G." 15

8. LT.-COL. C. M. PLUMPTRE

By "Senex" 19

9. EDITORIAL

20

10. PERSONAL

23

11. DONKEY SENSE

By D. S. B. S. 24

RECEPTION TO THE NEW MEDICAL GRADUATES ...	26
ANNUAL COLLEGE PRIZE DISTRIBUTION ...	30
STATEMENT ON CEREBRO-SPINAL MENINGITIS IN THE CITY ...	33
CAMPAIGN AGAINST TUBERCULOSIS -- SURGEON- GENERAL'S SCHEME ...	34
EXTRACTS ...	37
THE MADRAS MEDICAL COLLEGE CO-OPERATIVE CLUB, LTD. ...	65
THE PARK HOSTEL	
By "Vox Populi" ...	67
ANNUAL REPORT OF THE U.T.C. FOR THE YEAR 1937-38 ...	69
IN LIGHTER VEIN ...	71
OUR EXCHANGES ...	72



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Addison.

As Dr. Lonsdale said, "With Addison the investigation of any disease meant the full exercise of his abilities till he had mastered it, and having done this, he could not rest till he broke up fresh ground for tillage." He always held that the true physician must understand surgery well, and that the good surgeon must know the principles of medicine.

We are told that in one case, which had baffled all investigation, Addison was called in, and after careful inquiry, stated positively that the patient suffered from a disease of the suprarenals, which would before long prove fatal. This opinion was received with polite incredulity but it was justified by the result, and the suprarenal capsules were the only organs that were found diseased.

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"His strong, positive, and perpetual insistence upon the term 'practical' in reference to disease constitutes, indeed, the key to Addison's character and professional career. He was always ready to discuss newly started theories, but he never for a moment allowed them to interfere with the results of his 'matured experience'. Possessing unusually vigorous perceptive powers, being shrewd and sagacious beyond the average of men, the patient before him was scanned with a penetrating glance, from which few diseases could escape detection. He never reasoned from a half-discovered fact, but would remain at the bedside, with a dogged determination to track out the disease to its very source, for a period which constantly wearied his class and his attendant friends. If he could lay his finger on the disease, his victory was attained, and his painstaking satisfactorily rewarded. For, with him accurate diagnosis was the great, and too often the ultimate object of an industry of search, a correlation of facts deduced from scientific observation, and a concentration of thought rarely combined in the individual physician. But we fear that the one great object being accomplished, the same energetic power was not devoted to its alleviation of cure. Without accusing Addison of a meditated neglect of therapeutics, we fancy that we can trace the dallying with remedies which has been the characteristic of more recent times. 'I have worked out the disease; if it be remediable, nature with fair play will remedy it. I do not clearly see my way to the direct agency of medicaments, but I must prescribe something for the patient, at least to satisfy his or her friends!' Seems to have been a habit of mind which can deal satisfactorily only with the observable and proven, and shrinks from the uncertain and unquestionable."

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VOL. XVIII.

OCTOBER 1938.

No. 1.

The Diagnosis of Malnutrition in South Indian School Children.

BY R. PASSMORE,

Nutrition Research Laboratories, I. R. F.A., Coonoor, S. India.

Malnutrition is essentially a clinical conception. In medical practice, either in the consulting room or in the out-patient department, the experienced clinician will have little difficulty in determining whether a child is or is not malnourished. He will be able to obtain a dietary history from the parent; he will gauge the state of the skin, the lustre of the hair, the appearance of the eyes, the colour of the mucous membranes, the alertness and the attitude of the child. In fact he will look at exactly the same points as an experienced farmer who is running his eyes over some cattle or a horse, which he is contemplating buying. Provided there is ample time for examination, a good physician can usually form a very accurate opinion as to whether any given child is or is not seriously malnourished.

The problem of assessing the state of nutrition of a group of school children is a very much more difficult

matter. The time available for the examination of each individual child is limited, and it is usually only possible to obtain a very general dietary history. Further it is desirable to have some uniform basis for comparison between the children of different groups. There are, however, three early signs of malnutrition common in the Madras Presidency, which the staff of the Coonoor Laboratories have found extremely useful in assessing the degree of malnutrition in schools. They are not usually described in the standard text-books of medicine and, as in the early stages, they do not ordinarily give rise to symptoms which bring the patient to hospital, their importance is often not sufficiently stressed in clinical practice. A brief description of them will therefore be given. The three conditions are:—

1. Xerophthalmia.
2. Phrynoderma.
3. Angular Stomatitis.

Their incidence varies from school to school in the Presidency. They are definitely associated with poverty and malnutrition. A relatively small daily ration of fresh vegetables or milk will cure them and prevent their recurrence. It is, however, rare to find a school or hostel in which less than 5 per cent of the children are affected. Sometimes as many as 45 per cent of the children in a given school may show the signs.

Xerophthalmia.—The association of xerophthalmia with malnutrition and particularly vitamin A deficiency was established by many workers in different parts of the world in the earlier days of vitamin research work thirty years ago. The condition is probably familiar to most of you in the advanced stages when patients with extensive corneal ulceration and blindness present themselves in the eye department. Possibly the early stages of the disease and their significance are not so familiar. Wright's excellent clinical description is as follows:—

"The earliest manifestation is a symptom, night blindness, which is not observed in the very young child. It is, however, the complaint which brings many older children and adolescents to hospital. The next evidence of this progressive deficiency is the *peculiar smokiness* of the conjunctiva. This is the earliest obvious sign just as night blindness is the earliest obvious symptom. One may meet either or both of these in a youth who is apparently healthy looking in other respects. They are, however, danger signals and if it were possible for the baby to complain of the first, or for the mother to detect the second, the advance of the condition to a serious stage might be averted. When the early signs and symptoms appear, if nothing is done to augment the amount of essential food factors in the diet, the case rapidly progresses and marasmus sets in. As a rule the smoky

conjunctiva becomes dry, wrinkled and greasy-looking, the cornea becomes dull and lustreless, and eventually opaque. Occasionally the changes in the eye are of a different type and instead of a dry greasiness, we find a wet, dull red conjunctiva. In one case there appears to be a suppression of the lachrymal secretion; in the second it is excessive, but this does not obscure the essential changes. Little patches covered with a sort of white foam appear in the conjunctiva. Bitot's spots, they are generally situated at either end of a horizontal diameter of the cornea. The cornea eventually undergoes necrosis and ulceration, and if untreated, the ulcer perforates and the eye is ultimately lost."

It should be emphasised that it is the earlier signs of this condition, in particular the smokiness, dryness and wrinkling of the conjunctiva, which are valuable in the detection of malnutrition. Xerophthalmia frequently remains stationary in the earlier stages and never progresses on to corneal necrosis and ulceration. Wright estimates that 5 per cent of cases of preventable blindness in Madras are due to xerophthalmia. In our experience it is one of the commonest signs of malnutrition in South India. In the early stages it can always be relieved by giving vitamin A, either in its natural forms or in concentrates.

Phrynoderma.—This condition is a papulo-follicular dermatosis. It has long been recognised as a sign of malnutrition by local practitioners in Ceylon, who called it "toad-skin". The Greek name and the first scientific description are due to Nicholls. The sebaceous glands undergo marked non-inflammatory enlargement, and there is a formation of a horny plug to the pilosebaceous follicles. There is always an associated dryness and scalliness of the skin. The papular eruption is most commonly seen on

the extensor surfaces of the limbs, but it may occur all over the body. An examination of many school children can be done rapidly by inspecting the extensor surfaces of the arms for six inches above or below the elbow: the skin should not only be inspected but should be felt. In marked cases a "nutmeg grater" feel produced by the enlarged sebaceous glands is characteristic.

The exact cause of the condition is uncertain. There is no doubt that it is due to malnutrition and that it will clear up with a general improvement in the diet. We have had very striking improvements by treating cases with vitamin-A concentrates only. On the other hand it is not found closely associated with xerophthalmia, which is known to be a vitamin-A deficiency. In my experience phrynoderma is common on the West Coast, where it has the Malayalam name of Kara, but it is rare to find it in the Ceded Districts.

Angular Stomatitis.—This condition is an excoriation of the lips at the angle of the mouth. There is a soggy desquamation of the epithelium, which may spread a few millimetres on to the cheek, and extensively inside the mouth. I have recently seen cases in which

similar conditions exist at ano-rectal and vagino-vulval junctions and on the prepuce and eyelids. There can be no doubt that there is a degenerative process occurring at all the junctions of the skin with mucous membrane in certain states of nutritional defect. However, the angle of the mouth is the commonest site and frequently this is the only lesion of the mucocutaneous junctions.

The lips are often found to be cracked and oedematous. There is nearly always superficial erosion of the tongue. There are raw red patches on the surface giving rise to the term "Geographical tongue." Deep fissures at either side of the organ may be present. The whole mouth may be so sore that swallowing becomes painful. The tongue may be very severely affected with only a slight lesion at the angle of the mouth.

Angular stomatitis can readily be relieved and its reappearance prevented by a slight increase in the fresh vegetables or milk in the diet. It can be cured in a few weeks by treatment with alkaline autoclaved yeast, which indicates that it is due to lack of one of the vitamins of the B₂ complex. The exact nature of the missing factor is as yet unknown.

Observations on the Treatment of Typhoid.

BY CAPTAIN R. L. HAVILAND MINCHIN, I.M.S.,

*Additional Professor of Medicine, Medical College, and Physician,
Government General Hospital, Madras.*

I offer no apology for writing on this subject, for in spite of the advances that are taking place in sanitation in this country, the treatment of the enteric group of fevers still forms one of the major problems both in private practice and hospital work in India; for example, in the Madras General Hospital, in 1936, the last year for which complete figures are available, no less than 1,363 cases of this condition were treated and although similar figures are available from the other hospitals in the City it is interesting to find that the "well known immunity of tropical races" is still referred to in text-books of tropical medicine (Manson-Bahr 1935).

Before speaking of the various types of treatment that are advocated for the typhoid group of fevers I think it might be of interest to mention certain striking points in the symptomatology that have been noticed in Madras.

First the "rose spots" are never seen on Indian skins and the assistance of this point in diagnosis consequently lost. Secondly the slight enlargement of the spleen on which text-books lay so much stress, is in practice found to be rare and when present here, where so many other fevers give rise to splenic enlargement, is of no diagnostic value.

In spite of the fact that there are few diseases in which the pathology

and bacteriology are better understood than typhoid, it is a disappointing fact that there is, as yet, no specific treatment for this condition and the best we can do is to see that the patient has good nursing, and to anticipate and prevent the onset of the many complications to which sufferers from this disease are prone. In carrying out these measures there is no doubt that one's first care should be to diet. Typhoid is a disease characterised by prolonged fever. Throughout this fever the patient's metabolism is raised so that he requires even more diet than a healthy individual, the result being that unless sufficient food is given, the patient is compelled to draw from his own tissue for nourishment, rapidly losing weight and developing before the illness is completed, a dangerous state of emaciation, which necessitates a prolonged and difficult convalescence.

Coleman (1917) was one of the first to advocate a high calorific diet in typhoid fever, and in America to-day diets containing as much as 4,000 to 5,000 calories a day have been recommended. We have not been able to obtain these heights here, but we try to get the patient to take at least 2,000 calories which, we find, anyhow prevents the gross degrees of wasting seen in the cases treated by the classical methods of semi-starvation and, though I am not prepared to state that the mortality is cut down by this type of dieting, I am certain

that it is not increased, and the length of convalescence is greatly diminished. The diet we recommend is one consisting of light easily digestible foods, that are unlikely to give a large or rough residue; ground rice is, we find, the best calory producer: milk puddings, bread and butter, potato, eggs, custard, blancmange and similar substances may be given; glucose drinks are recommended and we have not found that these are liable to produce fermentative distension, though if they do, lactose is recommended. It is quite possible that this diet is poor in vitamins. Most sick room diets are, and consequently the addition of vitamin concentrates may be advisable. Farkas (1937) advocated the addition of vitamin C and reported favourable results.

Specific treatment of typhoid is a subject that has received much attention of late. Cookson and Facey (1937) reported the results from 73 cases, treated with Feli serum, and claimed 24 favourable results among 43 cases specially selected for their toxicity, these results and others which they quote they consider to be favourable. Shivartmane *et al* (1936) from America are equally impressed with their results with serum. They report improvement in 50 per cent of cases with delirium. These results are, however, far from convincing; there is no other more difficult disease than typhoid to assess the delirious severity of the condition, and delirious patients, who have been looked upon as being in a particularly dangerous state, have in my experience a fairly good prognosis.

Latin and Gulivers (1936) reported that they had halved the mortality in their toxic typhoid cases by removing 150 c.c. of blood from the patients and replacing it by 200 c.c. from a healthy

donor, and Bourgeow and Marsler (1933) reported even more favourable results by using serum from recovered patients, though Habel and Cooker (1936) were not so favourably impressed with their experience with this method of treatment. Specific bacterophage therapy has been tried but Eaton *et al* (1934) in their summary of the results consider them to be inconclusive and disappointing. Specific drug therapy in typhoid has never proved successful. Re (1934) reported very satisfactory results with the organic arsenicals but no one else has confirmed his work. The various manufacturers of sulphonamide claim that good results have been obtained with this drug in typhoid but in this hospital where we have tried various varieties, we have in no case noticed the slightest improvement in the patient's condition.

In the absence of any specific treatment for enteric, it is particularly important that the medical attendant should see that the patient has good nursing, and that he anticipates and prevents the onset of the many complications of this disease. The commonest minor complication is constipation which unless successfully treated leads to a far more serious and weakening fermentative diarrhoea or the possibly fatal complication of hæmorrhage or perforation.

The usually recommended method of treating the constipation of typhoid is the enema. This method certainly empties the lower part of the large intestine but rarely produces enough peristalsis to clear out the remainder of the large gut and never has the slightest effect on the small intestine, the result being that the patient is left with the discomfort of a partially loaded gut and at the same time is absorbing toxins and possibly bacteria

from the remaining infected faecal matter. To prevent this the open bowel treatment of typhoid was introduced. I have been unable to trace who first advocated this method but I propose to describe and attempt to justify the method I employ here.

When a patient is suspected of suffering from typhoid, the blood is sent for culture and Widal examination to confirm the diagnosis, and the patient is given in addition to the diet outlined above, a drachm of castor oil daily, the object being to produce one or two soft easily passed motions a day. In certain cases the dose has to be increased or decreased to produce these results but usually this amount is correct.

It appears to be illogical to use an intestinal irritant such as castor oil in a disease such as typhoid when the gut is inflamed, and it is often argued that such treatment is absolutely unjustifiable; practice, however,

has convinced us that the mild irritation produced in the small intestine by the break down products of castor oil have no injurious effect in patients treated in this manner. I have had no cases of perforation or haemorrhage and the troublesome distension which is so often seen on patients treated by classical methods, has been greatly reduced.

I am pleased to see that Bethel (1936) in his recent description of the treatment in a typhoid epidemic states that he did not hesitate to use purgatives and I am entirely in agreement with him that a gut kept in a state of active peristalsis is far less liable to bleed or perforate than one that is allowed to become clogged with faecal material or distended with the gases of putrefaction. Anyhow in the absence of any specific treatment I consider we are more than justified in using this method of treatment which, coupled with careful nursing, produces such favourable results.

A Dream.

BY "KAY."

It was thirty minutes past five by the time I came back to my room after a very tiresome day at the College. I hadn't done much work to have felt so tired but the endless, aimless and meaningless excursions in and between the hospitals are enough to wear out even the strongest man. As I approached the room I had removed my coat and had pulled out the tie. On entering it I threw everything on my not-too-neat table and flung myself on the half-spread bed. Hardly had the head hit the pillow I fell fast asleep and soared into Dreamland—the land of Utopias I dreamt.....

It was time to go to the College. I got dressed immaculately—neat creaseless trousers, a smart shirt and a tie to match and a well-tailored coat. With my hands stuck in the pockets I strolled out. (Many of us do not believe in carrying books and note-books. That work we entrust to the front-benchers).* One would have wondered where I was going. I was going to the hospital!

When I reached the hospital gates I was struck by the change that had taken place. I gazed and gazed and wondered what could have happened. I could not solve it. I went in. There again I observed the same unaccountable and indescribable change. There were no students about the corridors—I am a no changer. All were busy in their respective wards and it looked that the whole responsibility of the hospital administra-

tion rested on their shoulders. I could not help smiling at these silly students. I entered the M— ward where I was posted. There were only about ten students. There was a middle-aged serious-looking man sitting in front of a table and was going through some case-sheets. Students in groups of two and three were at each bed questioning, examining and writing notes. I could not account for this sudden outburst of enthusiasm among the students. I concluded that they were fast degenerating!

I approached the man at the table. He straightaway put me the question—I thought he lacked manners—"Are you posted here?"

"Yes" said I.

"What is your name?"

"K—, fifth year senior" I replied in a non-chalant manner suggesting that I was one of the "big" fellows in the College. But he did not seem to take the hint. He asked:

"Don't you understand that you should be in the wards before eight? Do you know the time now?"

"It is not yet ten. You must congratulate me for coming to the hospital and that too before time", and sat on the table to show how little I cared for him.

"Understand you are talking to Dr. G—, Physician, General Hospital.

* Ed.—At the end of the year appeal to the "front benchers" for their notes.

For the last fifteen days you have not honoured us by your presence. You must understand that in future you will have to be in the wards at the stroke of eight and on no account leave before 1 o'clock. You are in charge of bed numbers 2, 4 and 6 and with you are R— and V—, students of IV and III year respectively. You three are fully responsible for the patients in your charge and you must do all that is necessary. I am here at your disposal. You are expected to take all the help from me. Dr. Kr— will give you all the necessary information. He said in a slow and deliberate tone.

I felt too dazed to say anything. I could not understand what all he said. All I understood was that I must see Dr. Kr—first, I found myself face to face with Dr. Kr—. I did not know how I found him. He had passed only a year ago and was house-physician to Dr. G—. But who was this Dr. G—. He did not have that supercilious attitude or the look of wisdom of the physicians of the General Hospital that I had known of. He was too affectionate and moved freely among the students. Dr. Kr—enlightened me.

There were twenty physicians and twenty surgeons, all of equal status. Dr. R—was the senior Surgeon and Dr. D— was the senior Physician and Superintendent of the hospital. Except these two the rest were all honorary men. Each surgeon or physician had each only twenty beds to look after. I could not understand why there were so many of them.

"Don't be in a hurry, young man" said Dr. Kr—. "You just listen to what I have to say. Under each physician or surgeon are posted two housemen and not more than twelve students, three from each of the III, IV and V

Medical College Magazine

years. Each V year student is responsible for five patients and he has to do all the work with the help of his two juniors and with the advice and guidance of the physician-in-charge. You chaps are expected to be in the hospital at the stroke of eight?"

I sighed deeply. To be present every day in the silly wards at eight was beyond me. Even the usual two hours seemed to be superfluous.

"Don't sigh, old gun" he said smiling. "I have not yet finished. From the time a patient is admitted till such time as he is discharged each V year student bears the full responsibility for his patient. The housemen and the professors are there to give you all the help and advice. Nothing can be done without consulting them either. You are expected to be in the wards till 1 o'clock. Till such time as your work for the day is finished. Before going away you have to hand over charge to the housemen."

"What about lectures? It must be dirty job after all the tiresome work and one cannot go without lectures." I pretended to be very interested in lectures.

"No more of that nonsense; my dear chap, no more of that nonsense. All have recognised the futility of lectures. They are a torture to the students and a painful duty to the professors. Both disliked them and yet could not help going through the ordeal. Well, lectures are no more."

"Then how are we to learn? We have not come to College for drudgery" cried I.

"You learn everything in the words by seeing for yourself. Have

A Dream

you not yet realised that Medicine cannot be learnt in books and lecture halls? The professors are meant to help—not to preach. To continue... if there be any serious case you are expected to look it up frequently and if necessary stay in the hospital for the night. The students will have to do all the O. P. work too on admission days. The professor-in-charge acts only as a directing authority. He is to maintain a daily record of each student's progress and if at any stage a student is deficient he must be required to put in extra course. There are no more the Lucky Dips called examinations.

"By Jingo! that's splendid!! any system that abolishes examinations must be good." My delight became unlimited. I got all enthusiasm to work. Here was a chance to learn the subject simply for the love of it and not to pass an examination. Professors would not teach from the examination point of view nor would the students spend sleepless nights a few months before the examinations only to forget all immediately after the event. Humanity would have really capable doctors.

I was surprised to hear a nurse address as "doctor." Housemen were no more "dignified ward-boys" and students were treated with all respect.

I next went to the Anatomy theatre. I found there a number of

men in white overalls going about the groups of tables. The students were too absorbed in their work to look at anybody the least of all a nomad like me. I subsequently learnt that there were as many as twelve professors of Anatomy with Dr. A— as the senior professor. He was an enthusiastic old man going about examining students and taking extreme delight in his work. The students were divided into batches and each batch was in charge of a professor. The boys did all the work and the professors helped them wherever necessary. Each student had a card in which was recorded all the work he had done. Each student was examined at least once a week and was not allowed to proceed until and unless he was thorough in his work. Boys no more sneaked by the back-door. They had no need to. They were too interested in their work.

I journeyed on through the different departments. Everywhere I met with the same change of outlook. Everywhere interest was created for the students. I journeyed on and on

Next day I went expectantly to the College wondering if I would really find the change—if old order would give place to new. My heart sank to see that all was just as I had left the day before. It was only a dream. But will my dream ever come true?

A Plea for the Wider Use of Emetine in the Treatment of Certain Types of Pneumonia.

BY LIEUT. D. H. J. NICHOLAS, M.B.E., I.M.D.

Assistant Superintendent, Government Headquarters Hospital, Ootacamund.

As early as 1912 or 1913 I read an article (if I remember aright in the *British Medical Journal*), on the efficacy of Emetine in the Broncho Pneumonia of children, that particular type with a prolonged and protracted tail to the acute attack with a normal or 99° temperature in the mornings up to 102° or a little above in the evenings. I was first given the opportunity of testing the same in 1914 or 1915 when working at the British Family Hospital at Wellington, by kind permission of at that time Captain Renshaw, R.A.M.C. The patient, a child aged about 3 or 4 years, was ill with Broncho Pneumonia for about 14 days. His condition at the time of administering Emetine was critical and it was felt that we had exhausted all routine and regular lines of treatment. As I was very keen on giving Emetine a trial, feeling this was the type of case described, the patient, with Captain Renshaw's permission, was given a little less than $\frac{1}{2}$ grain of Emetine. The temperature came down to 99° that evening and thereafter remained normal, the patient making an uninterrupted recovery. I have since used the drug in several selected cases and almost invariably with good results. It is only after coming to the Government Headquarters Hospital, Ootacamund, through the kind courtesy of the Superintendent, Major P. J. Kelly,

I.M.S., and the friendly co-operation of Doctors V. Rajagopalan, M.B.B.S., D.T.M., and H. (London, Miss J. Gabriel and S. Subrahmanian, that I have been able to collect a few cases which, although insufficient to bear out my contention, I hope will prove of some interest.

CASE I. Admitted with Broncho Pneumonia on the 26th April 1938, the 3rd day of disease. Leucocytosis + + ; no malarial parasites. As will be seen from the chart (not sent for publication) he failed to respond to routine treatment. On the 16th May, the 23rd day of the disease, he was given $\frac{1}{2}$ grain of Emetine, and all other treatment stopped. This was repeated on the 17th and 18th. It will be noticed that his temperature reached and remained normal, and that he was discharged on the 27th May cured. He was given six weeks leave and has now gone back to his duties of a Police Constable.

CASE II. Here we have a similar result. This patient was 15 days ill when he was admitted to the hospital. Diagnosis Pleuro Pneumonia. Negative for Malaria but a slight increase in Hyaline Mononuclears. On the 17th May, the 23rd day of disease, he was given Emetine $\frac{1}{2}$ grain, repeated on the 18th and 19th. During this period as in the previous case all other medicines were withheld. His tempera-

ture reached normal, and he made an uninterrupted recovery. In both these cases, in my humble opinion, the effect of Emetine was magical.

It is interesting, before going on to the next case, to spend a little time in considering these charts. It will be noted that these two patients had their temperatures charted uninterruptedly every 4th hour day and night up to the time of the administration of Emetine, and this was in spite of the almost routine administration of Chloral, Bromides and other hypnotics excepting Morphia. After Emetine, as is to be seen from the charts, for the first time in weeks do these patients miss the midnight charting of their temperatures. This fact speaks for itself.

CASE III. In this case the use of Emetine was a new departure. Fatamabee was admitted on the 3rd May 1938 with Lobar Pneumonia Rt. Base, third day of disease. At the time of her admission she was in the 7th month of pregnancy. On the 6th May as she showed signs of commencing labour, she was transferred from the General to the Maternity Section of the Hospital, and at 8 P.M. was delivered of a stillborn premature baby. Her condition was all through critical. She touched normal on the 9th May and thereafter ran a very irregular temperature, never being normal for a whole day. Her right base remained dull and air entry markedly diminished. Daily examinations revealed no improvement in the lung condition, and her general condition was far from satisfactory. On the 17th May she was put on $\frac{1}{2}$ grain doses of Emetine daily, in addition to Potassium Iodide in mixture and Antiphlogistine to the right base. Her condi-

tion began to improve and the lung to return to normal. Emetine was discontinued from the 25th May and she was discharged from hospital on the 3rd June.

In concluding, one has to consider in what manner does Emetine act in the lung condition under discussion. Before going any further I disclaim that Ipecac is expectorant, and in spite of feeling that I am asking for untold criticism, I repeat and give it as my considered opinion that Ipecac is not expectorant. If we had "Vinum Ipecac Sine Emetine" just as we had "Ipecac Sine Emetine" years ago, I feel convinced that not one of us here this evening would dream of prescribing it in an expectorant mixture. Ipecac Sine Emetine had its advocates and was given a wide trial in years gone by, but is now relegated to the Limbo of forgotten drugs. We may accept that Ipecac in lung conditions depends for its beneficial effects on its active principle Emetine Hydrochloride alone. In my wide experience of its use in various lung conditions, one of the first results obtained is a diminution of the sputum and a lessening of expectoration with a drop in the temperature. I conclude, therefore, that Emetine inhibits or definitely destroys certain types of the causal organism of Pneumonia and Bronchitis very much in the same manner that it acts on Amœbæ, and to this alone can I attribute a reason for the almost immediate response to treatment. I feel that further investigation is called for and this can easily be undertaken in bigger institutions where there is the necessary staff and facilities, and will perhaps lead to the use of Emetine in the more acute stages of certain types of Pneumonia, with immense advantage to the patient.

• Paper read at the Annual Meeting of the Nilgiris Medical Association on Sunday, the 7th August 1939.

A Case of Tuberculosis of Knee Joint.

(From the Orthopædic Department, General Hospital.)

BY N. RANGAVADIVELU, M.B.B.S.

A patient by name Chenganna Naidu, male, aged about 20 years was admitted into this ward on 19th August 1938 under Dr. Narasimham.

Complaint and duration.—He complained of pain and swelling of his right knee joint for the last six months.

In his family history and history of previous illness, there was nothing particular.

History of present illness.—The present condition started six months ago with swelling and pain in the right knee. The swelling and pain persisted and was progressing. The patient denies any history of exposure to venereal infection.

Condition on admission.—The patient is a fairly nourished young man of 20 years. His teeth and tongue are clean. Nothing abnormal was found about his respiratory, circulatory and alimentary systems. Examination of his testis and epididymis proved normal.

Local condition.—His right knee joint was found swollen. The muscles above and below the joint were found wasted. The knee was kept in slight flexion. On palpation the joint was found to be warm and tender. Fluid was present. Thickening of the synovial membrane was felt as soft masses. The movements of his right knee joint were limited and painful especially on

flexion. His inguinal glands were palpable on the right side.

Investigations carried out.

1. X-rays. The X-ray showed general rarefaction of all the bones of his right knee joint.
2. Mantoux test. Negative.
3. Urine. Nil abnormal.
4. B.P. 100/60.
5. W.R. Negative.

Diagnosis.—First the case was suspected to be tuberculosis of the knee. The case was posted for arthrodesis.

Treatment.—16th August 1938.—The joint was aspirated and 2 oz. of straw-coloured clear synovial fluid was got. The fluid was sent for culture and guinea-pig inoculation. The bacteriological report was culture sterile and guinea-pig inoculation proved negative for Tubercle Bacilli.

22nd August 1938. Under general anaesthesia, a sub-patellar curved incision was made and the joint opened. On opening the joint, the interior of the joint was found studded with villous pulpy processes. The whole synovial membrane was removed *en masse*. It was thought to be a case of chronic villous papilliferous synovitis. Arthrodesis of the joint was done. The wound was sutured in layers.

splint and plaster casing done. The Pathology museum, the painting of entire synovial membrane was sent to which is seen here.



Specimen of the Tuberculous Synovial Sac.

Pathological report of the synovial membrane.—The report from the Pathology department came as Tuberculous disease of the synovial membrane. Guinea-pig inoculation proved negative.

2nd September 1938.—Sutures were removed and the limb was put in plaster casing.

The interesting feature of this case is the enormous amount of synovial thickening with pulpy villous processes. There were no tubercles seen on

the synovial membrane on naked eye examination on the exploration of the joint. The case was thought to be one of hypertrophic papillary synovitis. Guinea-pig inoculation of the fluid and the synovial membrane were both found to be negative, but histological examination proved the case to be one of tubercle.

I am indebted to Dr. N. S. Narasimham and the Superintendent of the Hospital for permission to publish these notes.

A Case of Uterus Bicornuate Et. bicollis

(From the Wards of Dr. A. L. Mudaliar, Second Obstetrician,
Government Hospital for Women and Children, Egmore.)

REPORTED BY S. G. RAJAGOPAL, FINAL YEAR CLASS.

Name. Saraswathy; age, 18; caste, Hindu; admitted on 11th October 1938.

Complaint.—Amenorrhœa for three months followed by bleeding per vaginum for three days and pain in the lower abdomen.

Previous history.—Married four years; child one; born eleven months ago; abortion one after three months of amenorrhœa a few months after marriage.

History of previous labour.—First natural and alive.

General condition of the patient.—Looks pale, slightly anæmic. No œdema. Respiratory and cardiovascular systems nil abnormal.

On examination.—Palpation:—A slight tender bulging in the right iliac fossa was palpable.

P. V.—Cervix soft, pulsating vessel in the left fornix. A fairly hard tender swelling with limited movement indistinguishable from the uterus and situated in the fornix was found. No blood on examining finger.

Diagnosis.—Conditions suspected were, (1) pregnancy, (2) pregnancy with inflammation and (3) ectopic gestation.

Operation.—By Dr. A. L. Mudaliar under C₂E₂, the abdomen was

opened by a median subumbilical incision. On opening into the peritoneal cavity a congested uterus presented itself. On examination it was found to have undergone torsion through 90 degrees. The right tube and ovary were found in the middle line posteriorly. The congested uterus was the pregnant half of a bicornuate uterus. The non-pregnant portion was found below and in front of the pregnant portion. There was a small fold of peritoneum passing from the sigmoid colon to the left tube and ovary.

The vesico uterine fold of peritoneum was incised, the bladder separated and a supra-vaginal hysterectomy together with right salpingo-oophorectomy was performed. The abdomen was then closed in layers.

Specimens.—The specimen was opened and found to be a uterus bicornuate et. bicollis. The fundus was arcuate and presented the characteristic features of a uterus bicornuate et. bicollis.

The non-pregnant cornu was opened laterally and a septum was found extending up to the incision through the cervix for the supra-vaginal hysterectomy.

After treatment and progress.

11th October 1938. The patient returned to the ward from the theatre at 12.20 P.M. Pulse was 120 and res.

piration 32 per minute. Rectal saline was started.

abnormal. Urine nil abnormal. Pain in the abdomen subsided.

At 1-20 P.M. a pint of rectal glucose saline was given and retained. The patient passed urine and the pulse had come down. Condition of the patient was fair.

18th October 1938.—Temperature kept up at 102°. Sutures were removed. Wound was healthy.

12th October 1938.—Temperature 98°F. Pulse 83 and respiration 24 per minute. The patient was sleepless and so 1 c.c. of omnopon was given. The patient slept well. There was no vomiting. Pulse volume was good and general condition fair.

20th October 1938.—Temperature normal. Wound healed by first intention.

22nd October 1938.—Temperature normal. Patient slept well. No complaints. Patient looked normal and healthy, was put on Mistura Acid tonic.

13th October 1938.—Temperature rose up to 100°F. Patient complained of pain in the lower abdomen. The abdomen was slightly distended. A turpentine enema was given and result was good. Patient passed urine.

25th October 1938.—Wound completely healed. Patient quite normal. Waiting to be discharged.

15th October 1938.—Temperature rose up to 102°. Lungs and heart nil

I am thankful to Dr A. L. Mudaliar for permitting me to report this case and to Dr. P. G. Thampan for helping me in preparing this report.

"Here and the Here-after."

BY G.

It was a Sunday. The whole of the morning and noon was spent with a Beverley Nichols. Even that interesting author could not keep me from feeling the day to be dull, without the routine work of the week. I was 'fed up' with the dullness that prevailed over me and I was at a loss to know how to spend the rest of the day. I thought that a couple of hours bummle somewhere would keep me alive till the time I retired for the day. Marina, that particular Sunday was out of question, because life there started only late in the evening and that meant more than three hours stay in my room. At the same time the place had become a bit stale.

After finishing the wash and the after-wash I sallied forth at four in the evening. I lazily sauntered along the Mount Road, looking at all things and nothing in particular. Some time after, even the Mount Road, thronged with the holiday-makers, began to 'bore' me. Without any definite idea I boarded a tram that passed by, even without noticing its destination. The conductor came, I took out the purse and felt for a coin. Out came a four-anna piece and the next moment a 'go-as-you-like' ticket was in my hands. I had a vague idea that the tram was going towards Central. Nothing particular or very interesting was there in the car to keep me alive.

When the street-car, as the Americans call it, approached the Broadway crossing, it was stopped by the traffic constable and after some time it moved and turned towards Broadway. Then only I came to know that it was

bound for Washermanpet. I got down and walked aimlessly along the pavement towards the Parry's Corner. At the entrance to the Y. M. C. A., there was a board and people were looking at it. Curiosity impelled me to go and have a look at it. "Here and the here-after"—a lecture by Swami Nityananda of the Paramananda Foundation of the U. S. A., at 6 P.M. sharp, The Auditorium", were the words that greeted my eyes. It was then twenty to six. Then arose a desire to listen to what the Swamiji had to say of the "Here land the here-after.". And I was one among the audience that has assembled to attend the lecture.

In the hall there was a good representation of ladies and gentlemen. It showed clearly that the lecturer was a well-known man, for the Madras public do not gather to hear a mere popinjay. I managed to secure a seat whence I could see the lecturer well and at the same time hear him distinctly. Just at the stroke of six, the Chairman of the evening introduced the lecturer, with a short speech, that he did not like to stand between the learned Swamiji and the audience, as he was very well known for his learning, scholarship and wisdom, as well as for his monumental work in the land of dollars, in the cause of Hinduism.

Amidst applause the Swamiji rose from his seat—a grand magnetic personality. His voice could be clearly heard by the man sitting in the last row. He had all the essential qualities that go to make a good and suc-

"Here and the Here-after."

17

cessful speaker. He began to trace the cause for the present, in the past, and told that the 'here-after' is shaped out of the 'here.' He was unravelling the mysteries of the karma yoga. By diving deep into the intricacies of the law of causation and effect, he explained the continuity of the Past, Present and the Future. Then he said: "Ladies and gentlemen, do not for one moment be under the impression that I am telling something far remote from the truth. If you only intelligently observe at the world events in the past and the present you can clearly see the law of karma holds good not only in the case of individuals, but also in the case of nations as well. You know what atrocious crimes were committed by the Belgians in Congo. Justice was done unto these people in the end. Now how do you account for the very severe loss of lives and property sustained by Belgium in the beginning of the Great War in 1914? Well, friends, the crime of the Congo was reacted in the streets of Brussels in 1914. Now what about the notorious Spanish Inquisitions when so many innocent souls were burnt alive? Well Spain is now answering the same. What about pre-War Russia? In the name of the Church the Clergy were actually ruling the people with an iron hand. Now what has happened? The church has no place at all in the U.S.S.R." The Swamiji was going on pointing out instances governed by the law of Karma. Well, to tell you, reader, the plain fact, I was not at all able to see how the crime of the Congo could be accounted for the bombing of Brussels. Some time later the lecturer did not seem to be on the physical plane. He was soaring high on the metaphysical plane. The lecture began to bore me, purely one of this planet, for nothing of what he told could my poor un-

trained intellect comprehend. I thought I could as well leave the hall and began to look around to see whether any one was moving out. Just then I saw a beautiful, nay, a charming girl sitting two rows opposite me. Of her profile, I had only a glimpse. Though I was not able to see her face, yet that little profile I saw told me that she was really a charming girl. After that the desire to leave the hall completely deserted me, and I continued to stay there, entirely forgetting the lecture and the lecturer. The Swamiji was going on lecturing to a much interested audience, and I sat there interested in only one person—the girl—one or—two rows before me.

The lecture was over, and the audience began to make a move. The girl two rows opposite me also got up and moved out. I saw her face. Such a charming and angelic face I had not seen before. Only if the world were full of such charming women, I am sure, there wouldn't be any need for any one to think and talk of the 'hereafter'. I began to wonder how such a girl could be ever interested in the subject as the one that was dealt with at length by the learned Swamiji. I saw her board a bus bound for Mylapore. It moved and my eyes were drawn in that direction till the bus vanished out of sight. With a sigh I turned and wanted to get into the tram bound for my place when some one called me "Hello!... Old top". My friend and myself were face to face.

"Hello! G." I said.

"Where had you been... been to the lecture at the Y. M. C. A.?"

"Yes. It was something on 'Here and the Here-after'".

"How do you find it? Very interesting I suppose."

"Not in the least. The old chap was telling of the 'here and the here-after', and after some time I became interested only in the 'here' that was there."

"Why not in the 'here-after'. Perhaps he told of how you should be and all that. That's the reason, I think, why chappies like you were not interested in the 'here after'."

"No, not at all that. Only the 'here' that was there kept me interested and the 'here-after' won't, because I know it will be dull".

"Well, what do you mean oldy? I can't make anything of what you say."

"You, blasted idiot, you cannot understand, you don't have the brains to know it; 'here-after' will be blank and dull."

"Why?"

"'Why?' . . . you fool, she has gone by that bus," so saying I boarded a tram and returned to my lodge, all the while thinking of the one that boarded the bus bound for Mylapore.

Lt.-Col. C. M. Plumptre.

BY "SENEX."

The Professor entered, file in hand, and as usual began his lecture. The class settled itself into a dull silence. Ere he warmed up entered a shaggy dog wagging its tail and nosing along the ground, walked straight to him, circled round him once, stared at the class and curled itself under the table, a centre of attraction and curiosity. Plumptre smiled a while and carried on. Little did we dream that our Professor's dog had come to bid farewell to us, we, who kept its master away from his evening tennis and itself as well. Things do happen unexpectedly and things have to happen.

Such of those, who had the opportunity to move closer with him, will feel an irreparable void, at his retirement, for the spirit of comradeship and brotherhood with which he treated them and has left an indelible mark in their minds. I had the unique opportunity of moving with him in more than one capacity and I was always struck by his tolerance, his anxiety to learn the other man's point of view, his resilience and his firmness.

As the President of the College Association, he was always ready to grant every demand of the students if it had the least semblance of reasonableness behind it. No one can forget his ever active fingers drawing and scribbling, all over the pad, chemical formulæ, numbers, cells, etc.

As the first President of the Co-

operative Club, he was ever ready to help it with his suggestions. It was the firm belief that one can always fall back on him for support, that enabled the promoters of the Club to pilot it through its infancy to robust childhood.

As the Principal of the College, his ever smiling face had been a source of hope and courage to every one who had to go to him for one thing or other. The lightning suddenness with which his smile would fade into one of concern and the words of reply couched so gently and so soothingly more than amply satisfied us on those very few occasions when he could not help us.

As Professor of Midwifery, he never taxed us in his lectures. As an examiner, I can't but convey the sigh of grief of all the final years, 'on losing such a fine examiner'.

As a member of the Governing Body of the Madras University Union, he was one of the very few who regularly attended the Governing Body meetings, meetings which are few and far between. The extremely sympathetic hearing he gave to deputation of the Managing Committee of the Union, is still green in me.

A good mixer, a fine sport, he was always the students' man. May he live long to enjoy his well-earned rest!

The Madras Medical College Magazine.

THE PRINCIPAL.



LIEUT.-COL. C. M. PLUMPTRE, I. M. S. the Principal, proceeded on leave on the 26th October 1938, preparatory to retirement. He was methodical and impartial in his work, and suave in his manners. He identified himself whole-heartedly for the good of the students in all their activities.

We wish him and Mrs. Plumptre all happiness and prosperity in their retirement.

OUR NEW PRINCIPAL.

Rao Bahadur Dr. A. Lakshmanaswami Mudaliyar, Second Obstetric Physician and Gynaecologist, Government Hospital for Women and Children, and Professor of Midwifery, Medical College, Madras, is appointed as the Principal, Madras Medical College. We offer our hearty congratulations to him.

TUBERCULOSIS IN INDIA.

The Anti-Tuberculosis Week was celebrated from 25th September to 2nd October 1938 throughout India. An attempt was made to

educate the leaders of public opinion and the masses on the nature, incidence and the measures required urgently to fight the disease.

The Indian Medical Gazette issued a special Tuberculosis number with much valuable information on the subject from the pen of workers in the field. Dr. Frimrodt Moller's paper is very valuable and is well worth study by administrators and others.

The anti-tuberculosis activities were begun differently in different countries in the West, while the measures now in force form a more or less uniform scheme in all. In those countries in the West where from the very beginning of the campaign, emphasis was laid on the importance of facilities for institutional treatment of the disease, the tuberculosis death-rate has declined most. In England the decline in death-rate from tuberculosis began about 1840 and became more marked after the period, 1860 to 1870. The statement below gives an idea of the institutional treatment available in three European countries as compared with India :—

Country.	Population.	Clinics.	Sanatoria.	Hospital Sanatoria.	Seaside Sanatoria.	Preventoria.	Total Number of beds for Tuberculosis.	Death-rate in the Country.
France, 1936.	42 millions.	821	156	19	54	214	71,632	151 per 100,000 (1934)
England and Wales, 1934.	37 millions.	478	537	residential institutions with			28,900	76 per 100,000
India.			20				2,000 only at present but 390,000 are required 1 in 900 of the population	

Editorial

21

Italy. The Fascist Government recognises the health of the nation as a direct responsibility of the State.

Italy is the only country where there is a special insurance against tuberculosis.

More than half the population of Italy is insured. Insurance against tuberculosis is compulsory for persons of both sexes, who are insured against invalidity and old age.

Year	A.-T. Dispensaries.	Beds.
1924	108	5,935
1927	305	26,680
1934	425	39,600

The co-ordinated scheme of the clinic, open air hospitals and sanatoria in Scotland reduced the mortality rate from 361 per 100,000 in 1875 to 74 in 1936. Sir Robert Philip expressed the dispensary ideal as follows : "The tuberculosis dispensary should be, for every city or district, the uniting point of all agencies. It should not be an isolated institution, but should form an integral part, indeed the centre of a great network of operations. The strength and success of the dispensary will depend, first, on thoroughness of its internal organisation, and, secondly on the closeness of its relationship with other institutions concerned in the prevention and treatment of tuberculosis."

Colonies for ex-patients and village settlements are also required. The Papworth village settlement established in 1916 consists of a hospital section of 180 beds, a sanatorium section of 137 beds, a hostel section of 155 beds and a village section of 120 cottages and factories.

Only carefully selected ex-patients who have had full experience of institutional treatment are admitted to the village to continue to live there, because

only such ex-patients, have learnt the limitations of their physical health and discipline of mind.

Care and after-care organisations are required for establishing colonies for ex-patients and for the care of dependant relatives, before and during the institutional treatment of the patients. These must assist in the prevention of the spread of the disease both within the home and from the home, as for instance, by removing young children from the infected home or by arranging for a separate sleeping place for the patient and by improving the sanitary conditions of the home.

Extensive surveys carried out by skin tests for tuberculosis and by X-ray examinations on contacts of patients and groups of people and communities have widened the activities and usefulness of the tuberculosis clinic; it occupies a foremost position in preventive work against tuberculosis. Inheritance, climate, race susceptibility, and house-infection are not great factors in the spread of the disease.

The influence of poverty and malnutrition on the development of tuberculosis is greatly exaggerated.

The tuberculosis mortality rate never declined so much and so rapidly as in Germany during the post-war period when more than one-third of the population was on doles.

In spite of prolonged economic depression, the death-rate from tuberculosis in New York during 1931 was the lowest recorded there up to that time.

An investigation in Norway draws attention to the fact that the spread of tuberculosis in the area surveyed seemed not to have any relationship to economic, sanitary and dwelling conditions.

It is not the poverty as such, it is not the food shortage as such but it is the shortage of the right kind of food that is responsible for more prevalence of tuberculosis in slums. A campaign for the right choice of food without increase or only a little increase in cost would have a far greater effect on the decline of tuberculosis than a raising of the general standard of living and an improvement in the hygienic conditions which can only be attained in course of time.

Tuberculosis is exceedingly widespread in India and is increasing and spreading, specially with improved communications, to areas, which were previously comparatively isolated. Tuberculosis clinics in connection with the existing institutions as head-quarter hospitals with certain

number of beds are required. Concentration of effort and work done properly must be the watchword of the campaign. The first and the most important step in the campaign is to train tuberculosis doctors. We publish elsewhere the speech of the Surgeon-General, Major-General N. M. Wilson, I.M.S.

We earnestly hope that some tangible steps will shortly be taken to commence the fight against the disease.

ANTHRAX.

The following occurs in the report on the incidence of contagious diseases of cattle in July 1938 in this province.

Anthrax—A rise in its incidence with a corresponding rise in the mortality was recorded. The total number of outbreaks and deaths reported being 361 deaths in 48 outbreaks in June and 519 deaths in 61 outbreaks in July. The occurrence was uniformly mild in all the districts with the exception of East and West Godavari districts where the number of reports recorded were 12 and 14 with a mortality of 60 and 88 respectively. 968 animals were protected in actual outbreaks of the disease.

This province has an extensive leather trade and so far as we know no case of human anthrax has been seen or reported in the city or from the districts. This point requires investigation.

LEST WE FORGET



MISS MARY PANCHARATNAM.

It is with very great regret that we have to record the demise of Miss Mary Pancharatnam at the early age of 27. Sweet and amiable by nature, kind to the patients and very witty in her remarks, Miss M. Pancharatnam has, since joining the College in 1931, been an endearing friend to one and all of her companions. That she should be snatched away from us so soon, and just when she was about to complete her course, comes as a great shock to every one who has known her.

May her soul rest in peace !

P. S. MUTHULAKSHMI, M.B.B.S.

Personal.

Lt.-Col. McRobert, M.D., F.R.C.P., I.M.S., Professor of Medicine and Physician, returned from leave on 24th October 1938.

Dr. G. Dinkar Rao, M.D., on relief, is to be Additional Professor of Medicine, and Physician.

Lt.-Col. W. C. Paton, F.R.C.S.E., I.M.S., took over the duties of the Professor of Gynaecology and Superintendent, Women and Children's Hospital, Madras.

Dr. P. V. Francis, M.B.B.S., was awarded the diploma of D.A.R.C.S. (England).

Dr. Ramachandra Rao, M.B. Ph.D. (Lond.), took charge of Professorship of Pathology.

Dr. Narayana Rao acts as the Professor of Bio-Chemistry from March 1938.

Lt.-Col. Verdon, I.M.S., Professor of Ophthalmology and Superintendent, Ophthalmic Hospital, returned from leave.

Dr. R. Audiseshan, B.S.Sc., Dip. Hyg. (Camb.), Professor of Hygiene, is the Director of Public Health, Madras.

Dr. R. M. Mathews, M.R.C.P., D.P.H., D.T.M & H., B.S.Sc., took charge as Professor of Hygiene from 1st of September 1938.

Dr. K. S. Visvanathan, B.A., M.B.B.S., B.S.Sc., M.P.H. (Hons.), Assistant Professor of Hygiene returned from leave after taking the Degree of Master of Public Health in Harvard University U. S. A., and undertook a study tour in Public Health Studies in Great Britain and the Continent and made a comparative study of the teaching of preventive medicine in various teaching institutions in these countries.

Dr. P. G. Thampan, returned from leave after taking F.R.C.S. (Edin.) and M.C.O.G. and is appointed Assistant to Second Obstetrician.

Dr. Alahasingeri, B.A., M.B.B.S., Acting Professor of Physiology, Medical College, Vizagapatam, from 1st October 1938.

Dr. K. N. Krishnan, B.A., M.B.B.S., Assistant to Professor of Physiology, Medical College, Madras, on leave from 1st September 1938 to 22nd December 1938 with permission to avail of the Christmas and New Year holidays of 1938-1939.

Dr. A. Srinivasan, M.R.C.P., Dr. C. P. Visvanatha Menon, M.S., F.R.C.S., Dr. Chintan Nambiyar, F.R.C.S. (Eng. and Edin.), are appointed as Honorary Physician and Surgeons to the Hospital.

Dr. M. V. Ramanamoorthy, M.B., F.R.C.S. (Edin.), is appointed as acting Assistant Professor of Physiology.

Donkey Sense.



BY D. S. B. S.

The donkey is not such an ass after all. Day after day he pursues that elusive carrot dangling in front of his very nose, he proves that he knows a good thing when he sees it.

What must be his thoughts as he cranes his neck to catch a glimpse of those shiny, succulent tomatoes, those comfortable cabbages, those naked sticks of celery, and those vivid oranges on the cart behind. I wonder if he promises himself a Roman Holiday along the Vitamin Way among those pyramids of health, when next the boss's back is turned and he gets a chance to kick over the traces.

We do not know! Asses can only hee and haw, they say nothing else. But we do know that nothing is better for Neddy than green vegetables and fresh fruit, so that if we cannot fill our ears with his philosophies, we can at least fill our mouths with his food.

In all dietetic questions, therefore, the answer is a cabbage, likewise its confederates, the tomato, the carrot,

the lettuce, the orange, celery, nuts and that haphazard collection of root-tops known as "greens".

To complete the vitamin group we must add brown bread, cream, butter, yeast, eggs, halibut liver oil, cod-liver oil and papieka, which is real hot stuff.

A tidy meal indeed, all the aristocracy of Old England in that list of names. They are the vitamins, lettered from A to G but they satisfy our needs from A to Z. Without them we are certain to suffer from poor appetite, constipation, dyspepsia, general loss of *joie de vivre*, and debility of mind and nerve; children require them if they are to escape measles, mumps, marasmus, loss of weight and ulceration of the corneæ; they are the defence against rickets, rotten teeth, weak bones, diarrhoea, beri-beri, scurvy and sterility.

Many of the vitamins travel a long way before they reach us. For instance vitamin A is transferred by the cow, as it complacently chews the

ud from grass, to milk and finally to utter; the phlegmatic codfish and the lopping halibut, snapping at small fry full of algæ, the greens of the sea, sooner or later pack their liver cells like a Highbury stand at a cup-tie, storing up vitamin A until some emulsion merchant relieves the hepatic strains in a last great round up. Carotene is the most colourful of the lot; it gives tonal value to carrots, oranges, apricots and to peaches when the word is used as strictly referring to fruit.

Vitamins A and D reside together. When the sun shines on the latter stored up in its animal or vegetable recluse, it emerges from its obscure habitation, Ergosterol, and radiates brightness, stimulation and hope to every drooping cell of the body. Bones grow, teeth stop decaying, the phosphates and lime are harmonized into a resistant mortar and the

protoplasmic edifice grows out of knowledge.

Since ultra-violet light and codliver oil have been employed in the treatment of backward children, rickets and all its associated infirmities have passed away. And vitamin C, which is present in most fruits, except grapes, the alleged standby of the invalid, is so essential a part of the daily food-supply of the baby that the Infants' League would revolt to a man if an attempt were made to stop their daily orange juice. And so it goes on, vitamins everywhere. In the tomato cocktail of Mayfair, in the boiled beef and carrots the army supply, the curds teeming with bacteria so easily obtainable in our lunch homes, yeast, bemax, marmite, eggs and fruits.

The donkey knows even though it only be donkey sense.



Reception to the New Medical Graduates.

The Medical graduates of the year were entertained, in the evening of the 10th August 1938 at a garden party by the members of the Medical College Association. A large number of past and present students of the College attended the function. Lt.-Col. C. M. Plumptre, Principal of the College, presided.

After tea, the guests adjourned to the main hall of the College where Lt.-Col. H.E. Shortt, Surgeon-General, addressed the new graduates.

The Secretary of the Association congratulated the graduates on their success and extended to them a warm welcome on behalf of the Association.

Mr. U. Mohan Rao, replying on behalf of the graduates, said that their term in the College had been marked by many important events in its life and in the public life of the country, such as the College Centenary, the appointment of Dr. A. Lakshmanaswami Mudaliar as Principal for a time and the change in the administration of the province.

The speaker, proceeding, said that he could not help feeling that the outlook was not all rosy for the graduates who had just passed out. People talked of "going back to the villages" and the "absence of overcrowding" in the profession; but to the professional man who had to make both ends meet, the problem presented itself in a different complexion. The speaker said that they need not, however, be downhearted on that account. Let them all push on with courage, and success would be theirs.

Five Golden Rules.

Lt.-Col. H. E. Shortt then addressed the graduates. He said:—

"When, a few days ago, I was asked by your Principal if I would address the students passing out of the College, I gladly agreed. This was not because I like making public speeches—far from it—but I felt that the occasion was a somewhat special one and that I would like to give some encouragement to those of you who have successfully passed the test of your final examinations and are now on the threshold of your future careers as medical men. I suppose it is expected on these occasions for one in my position, however unworthy, to give some good advice to men passing out from the College, advice which will be a guide to them until they have found their feet in the world and gained their own experience. Now I think, this right, however boring it may be to you, because there is always the hope that some of the advice which is good may stick and help some of you at some time in some way. That is the most I can hope for from my advice. I warn you, however, that my object can only be achieved in the likeness of a sermon and therefore, if some of you are reduced to a state of somnolence, I shall nurse no grievance. Now too often the advice given under such circumstances is based on details of experience which have no general application. So, instead of a sermon which would have as its egotistical text "go thou and do likewise" I shall try to give you five rules which if you observe them, you will find to be of general application, and a true guide to conduct under all



Group Photo with the New Graduates.

circumstances. These I shall come to presently.

Opportunities of Service to Mankind.

"It has always been the habit of the middle-aged and the old to say that 'things are not what they were in our days,' implying thereby that times have changed for the worse. Now, if you are going to be successful, put that out of your heads at once; it is a defeatist creed and not worthy of you who live in a time when both material and spiritual progress is being made in the world, at a pace never before approached. The very variety and the wide scope of the progress should thrill you and open up to you avenues of adventure unknown to your fathers. To get down to your own immediate interests, there was a time, it has not yet quite passed, when the chief ambition of men passing out of the Madras Medical College was to get into Government service with the least possible delay. It meant immediately an assured income which kept one out of the fear of actual want; as one progressed in the service, it meant comparative influence and an assured position and it meant security almost as great as that of a great insurance company. For your conditions have changed; there is still Government service—possibly less attractive and well-paid than in the past—but there are a host of other lines of work which you can take up. They cry 'overcrowding of the medical profession'—and, if the needs of all the people of India are considered, there is no approach to overcrowding—should itself be an incentive to you to branch out on individual lines, to take up the various specialities, to take thought as to where the need is greatest and then to make up your mind to supply it, for the first in the

field will reap the richest rewards. Many aspects of medical practice in the west—including in the term Europe and America—have hardly appeared at all in India and those introducing them will surely not regret it. Think of the opportunities which the introduction of panel practice would create; think of the advantages both to medical men and patient of combined clinics—where specialists in various lines combine and share work and profits—where a patient is assured that whatever his complaint may be, he will, at that clinic, be in the hands of a specialist in that line; think of the special branches of Medicine, Surgery, Bacteriology, Public Health and so on—these are adventures and to spare for you all if you have the spirit and the will to imagine and to do. I have said enough on general lines to show you that there are opportunities galore for you to explore. So I shall now come back to the few specific rules of conduct I mentioned which, being of general application, you must continue to observe under all conditions and which you must carry with you along the path of whichever of the various adventures I have mentioned you intend to pursue.

The first of these rules is: 'Play the game'. I do not need to explain to you what is meant by this and the precept is wide enough in its application to embrace every aspect of life. It will keep correct your relations with your professional brethren, with your patients and with the public. It may sometimes make you unpopular, but in the end it will pay you because the reputation for straight dealing which you will acquire will be worth more to you and will be more lasting than any occasional advantage acquired by less direct and more questionable means.

Be a "Go Getter."

"The second rule is: 'Work hard.' This may seem a bit hard! After five years of work and examinations you feel as if you would like to slack off a bit. Well, that is quite right and an occasional holiday after a spell of hard work is very necessary, but, that apart, you will find that hard work is very necessary if you are going to succeed. You are now 'on your own' and that means that when decisions have to be made and crisis to be faced, you alone are competent to decide on your line of action. Slacking and waiting for things to come to you will get you nowhere. You must be, to use the extremely expressive American term, a 'go getter', and this means being always alive to the main chance and ready to seize it when it comes. All this means hard work and plenty of it, because it is the greatest fallacy to suppose that any one ever succeeded by pure luck alone. Luck may help, but there must always be the background of hard work to seize and make use of the opportunity when it comes.

"The third rule is: 'Even after passing your final examination and qualifying remain always a student. 'You may ask what I mean by this. Well, I simply mean that your College career has been a waste of time if it has not taught you how to learn. Medical and surgical science, like all other sciences, does not stand still and the man who retains only the knowledge he possessed at the time of qualification, even if he remembered it all, would soon be left behind in the race and he would see others, more wise and more industrious, stepping over him. In other words, the medical graduate must take every opportunity to continue learning new methods and new ideas and keep up

to date in his reading. Only so will he deserve to succeed, and I would strongly urge you therefore, each one of you, to subscribe regularly to at least one really reputable journal which will keep you up to date with regard to all advances in Medicine, using the term widely to include all its branches and also related science.

"The fourth rule is: 'Welcome all experiences which come to you, whether bad or good.' The attitude of welcome to good fortune is easy to express and to maintain, but the attitude of welcome to bad fortune, while difficult to achieve, is even more valuable. It enables one to make the best of existing circumstances and either to endure until better times the bad fortune or to fight it and eventually turn it to one's advantage. In either case, the gain to one's moral fibre is great and worth the effort.

"Keep your Ideals."

"The fifth and last of the rules, I commend to you is 'keep your ideals'. When one is young, one has ideals, of service to mankind, of service to country and King. The man or woman who would remain young all his or her life must keep these ideals of youth. They act as a spur to effort or sometimes even as an aim in themselves. Always remember that the medical man, who has consistently been taught to reason, to weigh facts in the balance, to draw logical conclusions from given data, is the best educated citizen in the State because he has been taught how to learn. This gives him the opportunity and imposes on him the duty to lead the people by precept and example in a way which falls to the lot of no other profession.

"Now my sermon is ended, much to your relief I have no doubt, and it only

remains for me to congratulate, on behalf of us all, all those of you who have just graduated and to wish you all the greatest success in the career which you have chosen and which is, I believe, the best career in the world.

Lt.-Col. Plumptre proposed a vote of thanks to the Surgeon-General and the other guests.

The function concluded with a variety entertainment.

Annual College Prize Distribution.

The Hon. Dr. T. S. S. Rajan, Minister for Public Health, presided in the evening of the 2nd September 1938 at the annual prize distribution of the Madras Medical College.

Lt Col. C. M. Plumtre, Principal of the College, presented the annual report for the year 1937-38. The strength of the College during the period, the report stated, was 937 including 748 regular M.B.B.S. students and 54 Military pupils. At the Final Medical examination the percentage of passes was 37 as compared with 33.2 and 31.1 of the two previous years. There were 114 lady students in the College during the year. Fifteen of these taking the final M.B.B.S. examination and nine coming out successful therein. For the first time an intensive post-graduate course of study of tuberculosis was organised and post-graduate courses in Maternity and Child Welfare, Ophthalmology, Gynaecology and Obstetrics were also conducted. During the period of office as Acting Principal, Dr. A. Lakshmanaswami Mudaliar put through a scheme for a hostel for the lady students at College Park and another for the men students.

On the physical education side, the report stated that the College Cricket team was runner-up in the Inter-Collegiate League Championship. The College played eleven matches with other colleges and local teams, won five of them, drew one and lost five. The College won this year both the singles and the double trophies in the Inter-Collegiate Tennis Tournaments.

The women students of the College were regularly playing Tennis, Teni-

koit, Badminton and Throw-ball. Miss L. Bal and Miss N. Thurasingham retained their title in the Women's Inter Collegiate Tennis Tournament.

The U. T. C. contingent of the College also showed a satisfactory record of work during the year.

Gratifying Features.

After distributing prizes to the students who had distinguished themselves in their academic work, Dr. Rajan congratulated them all and added that he wished to extend congratulations particularly to the lady students. [A voice: why? (Laughter)]. The reason was that they had demonstrated that they could march along with men, compete with them and even score over them. As one who had a high opinion of India's womanhood, he was immensely gratified to find Indian girls joining the College and acquitting themselves well in their studies. To those who had not won prizes, he would only say this that chances were still available to them. While prizes were so many marks of appreciation of good work done, failure to secure them did not mean absence of worth. In a competition, all could not succeed equally well; it was more so in the "competition called life".

Dr. Rajan congratulated the College authorities on the comparatively high percentage of passes in the year of report but said it was still very low. It should be at least fifty per cent and he eagerly looked forward to the day when the authorities of the College and the University would make it a point to raise the percentage accordingly. It did not mean that students

should get "cheap passes" but that they should be made to pass by diligent work. When he was a student of the College, the military students occupied a privileged position and not many of them cared to take the University degrees. That so many of them should have gone in for University degrees last year was indeed gratifying and the Minister added, he was proud that it was given "to our brethren of the Anglo-Indian community to establish their status in Indian society as sons of the soil."

Sanitary Science Course.

Continuing, Dr. Rajan regretted that only a small number of students took to the advanced Sanitary Science Course. He was grieved to see that the preventive side of medicine had not attracted the number that it should have. The march of time and the demands of the health of the nation, the Minister hoped, would bring home to the pupils of the College the need for their qualifying themselves in this subject. Referring to the courses provided in the study of tuberculosis, Dr. Rajan said that a drive had recently been inaugurated against tuberculosis and the name of the Lady Linlithgow was associated with this "one of the most humanitarian movements" in the country. Trained doctors were essential in any attempt to combat the disease and he was glad the institution had started training medical students for the work of eradicating tuberculosis.

"Salt of the earth."

Referring to the articles published by members of the various departments of the College, Dr. Rajan said that he presumed they were all the result of research work. The research workers carrying on their activities unnoticed made a valuable contribu-

tion to the store of human knowledge; they were "the salt of the earth". He hoped such research work would lead to valuable results in the fight against disease and thus make India remembered by humanity for the contribution her sons made, not for wages or profit, but for the sake of humanity at large. He hoped it would be the good fortune of the College to contribute something outstanding in the sphere of scientific research in reference to medical relief.

Congratulating the students of the college and Dr. Lakshmanaswami Mudaliar on the provision made for hostels for women and men students of the College, Dr. Rajan expressed pleasure at the reputation that the College had maintained for years in the field of sports. It was but fitting that the Medical College should set the example in this respect; for the doctor whose duty it was to give and maintain health in others should first be a healthy and physically fit person.

Great Traditions.

Around the medical profession, Dr. Rajan continued, had grown great traditions through generations. It was the duty of medical students to devote themselves whole-heartedly to their studies first. They should for the time being be deaf to things outside their studies. It was good to be a patriot but lead to be one too early or prematurely. Everyone of them would surely have vast opportunities for service in "this progressive land of ours which is travelling fast to its liberation". All men were no doubt required for the service of the land. But the student had a sacred task and more particularly so the medical student. He would suggest to them to remember also that their studies would not cease with their college course; indeed, their education would

begin only afterwards. The effort to study and to learn should ever be there and to his last day the medical man should be a student. The aim and scope of work for which they were preparing themselves was eradication of disease. He would not be sorry at all, Dr. Rajan said, for the disappearance of the entire medical profession, if with it all disease and suffering too disappeared. Unfortunately this could not happen and medical men had to tackle disease to the best of their capacity.

As one who believed in service, Dr. Rajan continued, he would tell them that human nature was always ready to recognise and was responsive to service. Otherwise, life would be a thankless drudgery for many. Indeed even looking at the question from the point of material gain to one's self, service conscientiously rendered would be the safest and strongest foundation to build upon. They should not start and go through life counting rupees, annas and pies, though these were not unimportant at all in life. They

should remember that if these alone should be their goal and motive force, they could not progress far. Let them therefore aspire for something more real and fundamental than material success. This result could be achieved only through real service disinterestedly and sincerely given. The medical man lived in the midst of death. It should not kill the humanity in him. Death was as certain as life and, in between, it was the duty of all to make their days on earth as full of service to fellowmen as they could. The condition of India to-day called for a spirit of optimism, idealism, service and courage, far more than was necessary in any other country, and medical men, who had a sacred duty to perform by their fellowmen, would, Dr. Rajan hoped, rise up to the traditions of the profession, and the ideals of service which the country expected of them (Cheers).

With a vote of thanks proposed by Lt.-Col. M. M. Cruickshank, the function came to a close.

Statement on Cerebro-Spinal Meningitis in the City.

The Mayor stated that there was a sudden outbreak of Cerebro-spinal Meningitis in Egmore division during the second week of October. The earliest cases were from No. 11, Vengu Pillai Street, where a pregnant woman, aged about 20 years, died on the night of Friday, the 7th instant. Following this case, two persons had attacks, and were admitted in the General Hospital on the 8th instant. Simultaneously, a child aged two from the same house was admitted in the Women and Children's Hospital. There were also two admissions on the 8th and 9th instant into the Infectious Diseases Hospital, Tondiarpet, which were also suspected to be cases of Cerebro-spinal Meningitis.

Intimation was received on the 10th instant from the General Hospital that the two patients admitted on the 8th instant died. A detailed investigation, which was immediately made, revealed that the situation was very serious. A house-to-house search was made and nine suspicious cases were admitted on that day. The search was continued on the 11th and 12th instant, and fresh cases were traced and admitted. After a thorough investigation, proper arrangements for treatment of patients and prevention of the spread of the disease, the Commissioner addressed the Government for declaring that Cerebro-spinal Meningitis was a dangerous disease under Section 329 of the City Municipal Act and communicated to the Director of Public Health information about the occurrence of the disease and asked for his advice. The public were made aware

of the incidence of the disease by means of daily press notes and leaflets. Two Sanitary Inspectors and three sub-assistant surgeons were posted for carrying on intensive measures in the area to combat the epidemic. The Egmore dispensary was kept open till 10-30 p.m. daily. Every infected house was thoroughly lime-washed. The Corporation schools in the locality were closed. The disease continued in a severe form till the 14th instant, after which it showed signs of decline. There were 41 attacks and 12 deaths. There were no case after the 17th instant at Egmore. The Minister for Public Health visited the affected area on the 18th instant. The Government declared the disease a dangerous one. The situation had now improved. Almost all the infected houses were found to be overcrowded and situated in narrow streets and lanes. Investigation had been taken up with regard to overcrowding. The arrangements for the detection of carriers and other preventive measures were still being carried on.

In reply to a further question, the Commissioner stated that the source of the origin of this infection was not definitely known, but it was suspected that a person who attended a funeral in the mofussil near Ranipet imported it into the city.

In answer to a question it was stated that two cases were found, one in Chintadripet and another in Brickfield, Perambur.

The Commissioner stated the last attack reported, was three days ago.

Campaign against Tuberculosis.

SURGEON-GENERAL'S SCHEME.

"Week" Inaugurated In Madras.

A practical scheme to eradicate the scourge of Tuberculosis in the Presidency was outlined by Major-General N. M. Wilson, the Surgeon-General with the Government of Madras, in his address at the inaugural meeting of the Anti-Tuberculosis Week held on the 25th September 1938, under the auspices of the Madras Health Propaganda Board, at the Museum Theatre, Egmore. There was a large gathering of doctors and members of the Health Propaganda Board present.

A message from His Excellency, Lord Erskine, Governor of Madras, wishing the celebrations success was read by the Surgeon-General.

The Position in India.

The Surgeon-General next delivered his address, inaugurating the Week. After thanking the Board for the opportunity they had given him in addressing them, he said that he felt, it was his duty to speak plainly to them all, helping them to realise yet more fully the havoc that Tuberculosis played in the ranks of all grades of society and to ask them to give all the help they could in co-operating with them in fighting the scourge. It had truly been said that Tuberculosis was the most insidious of all diseases, it affected the life, happiness and spirit of a people. He did not wish to go deeply into statistics regarding the disease, but he felt he must bring clearly before them all, the picture that faced not only this Presidency but the whole of India. They all knew that in 1935 out of six and a half million people who died from disease through-

out the whole of India half a million succumbed to Tuberculosis, and throughout the Madras Presidency the death-rate from Tuberculosis was in the region of 150,000 per annum and Madras City alone accounted for close on 2,000 deaths a year from this scourge. Taking these figures of mortality into consideration it had been estimated that there were usually 10 cases of Tuberculosis infection for each death, so on this basis they would be able to deduce the actual number of cases of Tuberculosis in India and the figure would stagger them. He regretted to have to state the fact that more could have been done in the past in India to alleviate the conditions of those suffering from the disease and likewise to prevent the disease. He had given them rough figures of the mortality from Tuberculosis throughout India, half a million, and he would again repeat "for every one death from Tuberculosis ten are infected with the disease". Now let them compare what was being done in Great Britain with what was being done in India.

Great Britain's Example.

"Great Britain," the Surgeon-General proceeding said, "covers an area of 53,851 square miles and has a population of roughly 45 million people and for this area Great Britain maintains 677 well-equipped and well-staffed Tuberculosis clinics. India covering an area of 1,808,679 square miles with a population of close on 400 million people has only 40 Tuberculosis clinics and these are not efficiently equipped and only a very few have an adequate

number of trained health visitors for preventive and educative work. Then again let us compare the number of hospital beds given over to the treatment of Tuberculosis in Great Britain with the number in India. In England there are 28,900 beds for patients and accommodation in open air schools for 14,705 children tainted with the disease. India, it is estimated, maintains accommodation for only 2,000 in twenty Sanatoria and various hospitals, most of which have been established through private enterprise, subsidised in a few cases by local Governments. India has no organised scheme for the after-care of those discharged from Sanatoria. I put these facts before you so that you may judge whether it does not behove the people of India to take active steps to combat what has now become a major Health Problem. Therefore I have no hesitation in saying that Her Excellency Lady Linlithgow's appeal for funds for Anti-Tuberculosis work throughout India is the most magnificent appeal ever made in India and I have every confidence that through Her Excellency's foresight India will now be prepared to fight a stern battle to eradicate this scourge.

Plan of Campaign.

"Now let me tell you in what manner we intend to tackle the disease. While in Simla lately I had many opportunities of discussing this problem and we are all agreed that the first steps to take are these; in fact the scheme I am going to outline is being adopted throughout the world, after 50 years of experience in Anti-Tuberculosis measures.

To form a cadre of medical men, specially trained in Tuberculosis work, we are all of opinion that Tuberculosis is a disease which must be "specialised in" and carefully studied

and only those specially qualified should be taken on to this cadre. We do not consider that medical officers who have had only one month's theoretical training with a few demonstrations of patients under sanatorium treatment are sufficiently qualified to be in charge of a clinic. Concentration of effort and work done properly must be the watchword of the campaign.

The establishment of Tuberculosis clinics throughout the whole Presidency staffed by doctors of our special cadre. The purpose of these clinics is four-fold; firstly to accurately diagnose the disease and gauge its extent; secondly, to give expert advice to patients as to what form of treatment should be adopted; thirdly, to be a means of spreading propaganda for the prevention of the disease through the agency of Women Health Visitors who will form a portion of the staff of these clinics and who will visit out-patients in their homes; and fourthly, these clinics will form centres in which post-graduates in Medicine can be taught the modern methods of diagnosing and treating the disease in its early stages.

After-Care Colonies.

"The establishment of sanatoria throughout the Presidency," the Surgeon-General concluded by saying, "is a parallel necessity. The clinics will feed sanatoria. The natural outcome of the sanatoria are colonies of cured patients. I must here explain that such colonies have come into being through the demand of cured patients themselves. These patients have found the benefit of living a regularised life with an environment of fresh air. The teaching of industries which do not overtax their recently regained strength renders them happy and useful members of

the community and a bridge was formed between the hale and hearty subjects living in towns and the sanatoria which are bringing sick people back to life. The colonies will be in the vicinity of the sanatoria and regularly visited by members of the sanatorium staff. I fully realise the importance of slum clearance and the schemes for improving the standard of living but these schemes will take a long time to mature and as we all recognise that our foremost policy in this province is to educate the masses

in Anti-Tuberculosis measures the finest propaganda in educating the masses is the cure and alleviation of the disease. I have in a brief way given you a working scheme and I trust that the members of the Health Propaganda Board and those of you who are here to-night will spread this information throughout this large Presidency and I feel certain that as Madras has always led India in the way of medical relief to its sufferers, the Presidency will continue so to do.

Extracts.

ACUTE APPENDICITIS.

BY GREY TURNER, M.S., F.R.C.S.,

Professor of Surgery, University of London; Director of the Surgical Unit, British Post-graduate Medical School.

"Let us return to our ideal; early operation is the only safe practice."—J. B. Murphy, 1916.

TABLE I—*The Surgical Treatment of Appendicitis (Combined Figures for a Consecutive Five-year Period (1933—37) from the London Hospital and the Royal Victoria Infirmary, Newcastle-on-Tyne).*

	Number of Cases.	Deaths.
Acute cases (excluding localized abscess)	6,725	247 (3·67%)
Abscess cases	604	51 (8·44%)
Above two groups (all acute cases)	7,329	298 (4·07%)
All cases (acute, sub-acute, and interval)	9,933	308 (3·10%)

But I am not good at juggling with statistics, and I find that it is extremely difficult to get comparable figures from which one might draw perhaps some suggestive conclusions. I would, however, ask you to bear with me for a moment to consider some figures dealing with my own personal experience over the period of thirty-four years that I was in surgical practice in Newcastle-on-Tyne.

TABLE II.—*Appendicitis to End of 1934 (Newcastle-on-Tyne)*

	Number of Cases.	Deaths.
Group 1. Acute appendicitis without peritonitis	159	...
" 2. Acute appendicitis with localized peritonitis	428	4 (0·93%)
" 3. Acute appendicitis with flank or pelvic peritonitis, or both	230	22 (9·56%)
" 4. Acute appendicitis with diffuse peritonitis	96	28 (29·2%)
" 5. Appendicitis with residual abscess	64	5 (7·81%)
" 6. Appendicitis with primary localized abscess	446	16 (3·59%)
" 7. Appendicitis—interval removals	1,080	4 (0·59%)
" 8. Appendicitis with primary complications	20	9 (45·00%)
" 9. Appendicitis—no operation	0	...
" 10. Appendicitis—incidental removals	0	...
Total	2,523	88 (3·49%)

Groups 1 and 2
Groups 1, 2 and 3
Groups 1 to 6 and 8 (all acute cases)
All Groups

...	587 cases :	4 deaths	(0.68%)
...	817 "	26 "	(3.18%)
...	1,443 "	84 "	(5.82%)
...	2,523 "	88 "	(3.49%)

The Classification of Appendicitis.

So far as I am able to judge there can be no classification of appendicitis that is not open to error and to which objections cannot be raised. I can only suggest that the simple grouping employed has proved most useful. May I just point out that it is in no way selective and that, as it includes all the cases, anyone may draw his own conclusions from the information provided.

It will be noticed that the basis of the classification is a pathological one, for the disease starting in the appendix spreads from this area as a radiating infection. In the great majority of cases appendicitis, at its inception, is a local disease, but when the infection spreads a secondary nidus arises in the peritoneum and in some cases in the blood stream. Group 5 includes those cases in which a more or less diffuse inflammation, as in Group 4, has fortuitously localized, but with abscess formation which is not necessarily around the appendix; it may be pelvic or sub-diaphragmatic or in the flank. In Group 6, on the other hand, the inflammation has gone on to suppuration, but around the site of the appendix wherever that organ may happen to be situated.

Group 8 comprises those cases in which there were primary complications—that is to say, in which patients have come under treatment suffering from appendicitis but with some such complication as acute intestinal obstruction, pyelephlebitis, advanced cardiac disease, pneumonia, or some other such condition. Group 9 was carried out, lest one might be

accused of improving statistics by refusing to operate on bad risks. But the cases in which I have not operated have usually been those who refused surgical intervention, and these have been so few that years ago I ceased putting them in the table.

In their large emergency hospitals in Moscow they are trying out various methods of treatment checked by careful statistical records. It is a mass experiment which is extremely interesting, and may provide valuable guidance for the surgery of the immediate future.

Stage at which to operate.

Nevertheless, with the knowledge that many cases get well, it is perfectly reasonable that some patients, and often for the most excellent reasons, should wish to take the chance. But how are we to know that improvement is really taking place—what simple rule will guide us?

One of my former colleagues, the late M.W.G. Richardson of Newcastle-on-Tyne, to whom I am much indebted for many valuable lessons in emergency surgery used to teach that in appendicitis it is unwise to conclude that natural recovery is taking place unless all the symptoms are improving. I have long been convinced of the great wisdom of this rule, and if it were always observed many a life would be saved and many a long illness prevented. It is not enough that pain is diminishing if the pulse is going up, or that the pulse remains unaltered if pain is becoming diffuse or the temperature is rising. The progress of

the case is only sure if all the symptoms are simultaneously improving.

Early Diagnosis.

How are we to make the early diagnosis which will justify the prompt surgical intervention which is so important? Well, there are easy cases and difficult cases, and nobody is more ready to admit that I have often been confronted with problems in diagnosis which only an operation has solved. In the easy cases—and they are in the great majority—the cardinal symptoms, as set out by Murphy, will always be found, and they are so important that I make no apology for referring to them once again. These are: pain in the abdomen, which may be sudden and severe but is rarely overwhelming; nausea or vomiting or some gastric disturbance with disinclination for food; general abdominal sensitiveness, sooner or later more marked over the right side; and elevation of temperature. Murphy insisted that the symptoms occurred in that order and was accustomed to say, "When that order varies I always question the diagnosis." But every case must be carefully considered, and I would say without hesitation that it is often indiscriminate diagnosis rather than hasty operation which brings early intervention into discredit.

The history of the onset is important; it may be sudden and severe, or more gradual. In the former case the patient may look very ill, and I have always attached importance to the testimony of those who know the patient and who can say that the aspect is altered. The rise in temperature may be slight, and Murphy used to point out that it may sometimes only be detected per rectum; but none the less I agree that it is never absent.

It must surely be universally realized that the pain may be entirely epigastric or just around the umbilicus, but, however the tenderness is found only at the site of the appendix, and that is usually in the region of the right iliac fossa. In the presence of an acute appendicitis the pulse may be little affected; but as the condition develops it invariably quickens, and a steadily rising pulse is a valuable collateral sign. The condition of the tongue is seldom mentioned; yet it is invariably slightly altered even in the early stages, and, though difficult to describe, there is something about it that seems to me characteristic when associated with the abdominal sequence on which Murphy so much relied.

It was my friend Arthur Burgess who first impressed on me that it is not necessary to wait for rigidity before making the diagnosis. The mere difference in resistance as compared with some other part of the abdominal wall is enough to guide the experienced observer. This is especially valuable in the pelvic and retrocaecal cases, where the appendix is hidden away from the abdominal wall.

The repeated small dose of morphine is fraught with great danger, and should never be employed when abdominal emergency is in question.

Treatment in Early Cases

The treatment of the cases in this comparatively early stage is very simple, for all that is necessary is to remove the appendix and when in doubt to put in a small rubber tube to act as a drain.

"The state is best governed as you cook like fish, without much busyness."—*Laotze*.

It is perfectly true that there is often nothing to drain; but a small tube provides a track to the surface, and if the organisms do regain their activity after the removal of the offending organ such a track may mean an external discharge rather than an internal spread. At all events, I believe that a small tube properly placed often does good and never harm: but it should not be removed too soon, and I am accustomed to leave such tubes *in situ* for a week. If by that time there is no discharge they may safely be discarded. To the young surgeon I would most emphatically declare, when in doubt drain.

I have twice in my life seen patients with such an abscess die suddenly from rupture of the collection into the peritoneal cavity while waiting for absorption to occur, and many times I have seen the inflammation gradually spread and convert a local process into a diffuse peritonitis.

Pathological processes do not attend on the clock and, whereas in one case diffusion of infection will have taken place within a few hours, in another this event may be delayed for days or may never occur.

The main causes of death are unarrested peritoneal infection, the formation of undetected abscesses in situations like the pelvis and the sub-diaphragmatic areas, intestinal obstruction of various forms, cellulitis of the abdominal wall, and pulmonary infections. This may have some bearing, but it is of very minor importance compared with the stage at which intervention is carried out. For instance, one operator, with certainly most excellent results, attributes a large part of his success to the fact that he never buries the stump of the

appendix. I have always endeavoured to bury the stump, and I am equally satisfied that nothing but advantage has ever accrued to any of my patients from this step. All these things are of great interest, but I am equally certain that they are not essentials, and they must not be allowed to distract our attention from things that are.

But for the later cases, and especially those presenting a lump, the oblique incision directly over the site of the mischief is much superior to any other. It has been a great satisfaction to me to find how readily my new associates at Hammersmith, who have all been trained in Southern schools, have appreciated the advantages of this approach.

I want particularly to insist on the equal importance of following up a diagnosis of probable acute appendicitis by operation.

When operated upon I nearly always found in children the appendix grossly and unmistakably diseased. Often the child will appear to be quite well and have nothing but a little remaining tenderness over the appendix, and yet the appendix may be perforated and surrounded by pus.

In old people the peritoneum seems to lose its powers of natural resistance, and I am again satisfied that we should not postpone an operation because a patient probably suffering from appendicitis is aged.

When appendicitis is a complication of pregnancy it demands early operation.

Murphy used to deplore what he called "epidemics of so-called conservatism" in dealing with appendi-

citis, and I have myself often pointed out that the the recurring advocacy of a waiting policy or delayed operation has almost invariably been followed by a wave of increased mortality:

I do hope that as the result of the

discussion the message may once again go forth to the profession with no uncertain voice that appendicitis means operation, and that the earlier the operation the better the chance for the patient.

—B. M. J., October 1938.

EXTRACTS FROM THE ANNUAL REPORT OF THE CHEMICAL EXAMINER'S DEPARTMENT, MADRAS, FOR THE YEAR 1937.

A. Human Poisoning Cases.

Potassium Bichromate.—A man was heard yelling at about midnight. When the neighbours ran to his help, he told them that, owing to heavy involvement in debts, he had swallowed pottassium bichromate to end his troubles. He complained of acute pain in the stomach and was removed to a hospital where he expired within about an hour and a half. At the post-mortem examination, one drachm of yellowish fluid was found in the pericardium and one ounce of fluid blood in each of the auricles of the heart. The lungs, liver, pancreas, spleen and kidneys were congested. There was marked corrosion in the lower half of the oesophagus. The mucous membrane of the stomach and intestine was corroded and dark in colour. The brain and its membranes were congested. We detected chromium equivalent to about 31 grains of potassium bichromate in the viscera.

Nitrite.—A woman of the weaving community swallowed some substance kept for use in the dyeing of cloths and expired in about three hours. The symptoms were not noted in the report but death was stated to be "strange and astonishing"! At the post-mortem examination, about half

an ounce of serous fluid was found in the pericardium and the right side of the heart was full of fluid blood while the left side was empty. There was congestion of the lungs, spleen and kidneys. The stomach contained a greenish yellow fluid. We detected in the viscera nitrite equivalent to about thirty-three grains of sodium nitrite.

Barbituric Acid.—A young man who had failed twice in the examination for compounders did not get up for breakfast one morning and was found to be sleeping the whole day. As he did not get up even at sunset his people got alarmed and took him to a hospital where he died without regaining consciousness. At the post-mortem examination, a reddish fluid was oozing from the mouth and nose and rigor mortis was present all over the body. The features were calm and pupils contracted to a pin point. The pericardium contained about a quarter of an ounce of yellowish fluid and the left auricle of the heart contained a similar quantity of fluid blood. The lungs were extremely congested and there was marked congestion of the larynx, trachea and bronchi. The liver, pancreas, spleen and kidneys were also congested.

There were patches of hæmorrhage on the mucous membrane of the stomach. The membranes of the brain were congested and the ventricles of the brain contained in each of them about one drachm of a reddish fluid. Death was suspected to be due to opium poisoning. We detected in the viscera, in the stomach wash and in the urine, a derivative of barbituric acid which gave the reactions of veronal. Opium was not detected though specially looked for.

Datura.—One morning a young woman and her mother were returning home after attending a festival in another village. They were joined by the accused who stated that he was going in the same direction. After going a certain distance, he gave each of them some powder which he stated would allay thirst. The old woman swallowed the whole of the powder but the young woman swallowed only a portion. Both became unconscious and when the young woman regained consciousness late in the evening, she noticed that her mother was dead and the accused had vanished. A gold chain of about five or six sovereigns which she had been wearing had also vanished. The young woman made a complaint to the village magistrate. The viscera of the mother were sent to us and we detected a mydriatic alkaloid in them. The accused was traced with great difficulty and arrested after being spotted out by the young woman in an identification parade. The accused was tried and sentenced to ten years' rigorous imprisonment.

Madar Juice.—All the thirteen cases of madar juice poisoning in 1937 were suicidal. In two cases the body was decomposed and no characteristic post-mortem signs could be made out. A study of the remaining

eleven cases, showed, signs of cardiac failure in seven cases, intense congestion of lungs in nine cases, congestion of the liver in seven cases, varying degrees of congestion of the stomach in nine cases (the mucosa being congested only in six cases), congestion of the intestines in five cases, congestion of the kidneys in six cases and congestion of the brain in four cases.

Opium.—A girl of about eight years of age was returning home from school for lunch, along with another girl, after the morning classes. She was then wearing some jewels. She was accosted by the first accused who gave her a two anna piece and invited her to his house to look at a doll. The girl promised to go to his house some time later. She went home and asked her mother for food. As food was not ready, her mother asked her to peel some onions. The girl peeled some onions for a short while and then ran out of the house. That was the last occasion she was seen alive. The mother, getting anxious about the continued absence of her daughter, sent word to her husband who searched for her everywhere possible till sunset. Finding no trace of her, the father made a complaint to the police. Some persons had seen the first and the second accused getting into the *jutka* of the third accused that afternoon and going in the direction of the river. The three accused were arrested and the first accused confessed that he had removed the jewels from the murdered girl and secreted them under a stone in the latrine in his mother's house. The jewels were discovered at the place indicated and were identified as the jewels of the missing girl. The dead body of a girl was recovered from the river with arms and legs tied together and was identified to be that of the missing girl. The post-mortem

examination revealed death from strangulation probably with a rope. We detected opium in the viscera. The child had evidently been drugged with opium and strangled to death. The first and the second accused were sentenced to death and the third accused was acquitted.

Oleander.—In the following case, oleander was intended as a *love potion* but unfortunately did not have the desired effect:—

One night while a young man and his father-in-law were at dinner the widowed sister-in-law of the former served each of them with a separate chutney. The young man after eating a few morsels noticed a peculiar taste in the food and passed on the dish to his father-in-law who ate the remaining portion. Both were taken ill but the young man recovered after treatment in a hospital, whereas the old man died. We obtained the reactions of oleander from the stomach wash of the young man but not from the viscera of the old man. The woman stated at her trial that she had served in her brother-in-law's food some drug supplied to her by a friend of hers, believing that it would cause him to be inclined more favourably towards her. She was sentenced to two years' rigorous imprisonment.

B. Analytical Notes.

Datura.—The examination of the urine appears to be more valuable than the examination of the stomach wash in cases of datura poisoning. During the three years 1935, 1936 and 1937, fourteen specimens of urine were received in this laboratory from suspected victims of this poison and we detected a mydriatic alkaloid in each of the fourteen specimens. In two cases, the urine was the only article received. In the remaining twelve

cases, the stomach washes of the victims were received here at the same time as their urines. We detected a mydriatic alkaloid in only nine of the stomach washes, but not in any of the remaining three stomach washes. So in three cases a mydriatic alkaloid was present in the urine though absent in the stomach washes.

Ganja (Indian hemp).—We found that the resin of ganja which yields the Beam's test with alcoholic hydrochloric acid, gives also a characteristic purple colour in chloroform solution with acetic anhydride and a drop of sulphuric acid. The latter reaction may therefore be used as an additional test to Beam's test.

Nerium Odorum.—This plant known as *Kaner* (Hindusthani), *Alari* (Tamil), is very common in South India and its leaves are often used as a poison, either as a paste or as a decoction. This poison has been a subject of study for several years in this laboratory. The microscopic anatomy of the leaf has been described in my Annual Report for 1933. Our work on its poisonous principle does not support the results of Chuni Lall Bose (*vide* 'Lyon's Medical Jurisprudence for India,' 8th Edition, page 725). It is apparent that the three extracts referred to therein probably owed their poisonous action to one active poisonous principle and that the three substances were probably the same poisonous principle in different degrees of purity.

The pure white crystalline glucoside has been isolated by us from this plant and its chemical and physiological properties have been studied. The method of extraction was as follows:—

The acid alcoholic extract of the leaves after evaporation of the alcohol

was taken up with boiling water and treated with basic lead acetate, filtered, the filtrate treated with animal charcoal to remove colouring matters and again filtered. The cooled aqueous filtrate was delead with sodium oxalate, filtered, the filtrate made alkaline with sodium carbonate solution and extracted with chloroform. The chloroform extract, after distilling off the chloroform, was dissolved in hot 30 per cent alcohol, boiled with animal charcoal, filtered and the filtrate again extracted with chloroform. Evaporation of the chloroform at a low temperature and drying in the vacuum desiccator yielded a white crystalline substance with a melting point of 123° C. This substance was found to be sparingly soluble in water and very sparingly soluble in ether, petroleum, ether and benzene. It is readily soluble in alcohol, acetone and chloroform. A minute speck dissolved in concentrated sulphuric acid gives an immediate purple colour which takes on a deeper tint on standing. It gives also the Keller's test—a bright green colour appearing in the acetic acid layer and a purple colour in the sulphuric acid layer. Both the colours are stable for several days.

One-fiftieth of a milligram was found to be about the average minimum lethal dose to frogs weighing about 10 grams, paralysis and death being the symptoms noted. There is no bloating after death. Eight milligrams, injected into the abdomen of a dog weighing about 4.1 kilograms, killed it within an hour. The symptoms noted were progressive paralysis starting from hind legs, defecation, retching, foaming at the mouth and death. As about one-eighth of a milligram of strychnine is about the average minimum lethal dose to frogs weighing about ten grams, this extract appears to be about six times as poisonous as strychnine to frogs.

Combustion analysis by C. A. Subrahmanyam, using the semi-micro method described below, gave C=66.4 per cent; H=8.08 per cent; O=25.5 per cent (by difference). Nitrogen is absent. The molecular weight, determined by Pregl's modification of Rast's method using the melting point depression of camphor, was somewhere about 656.

The formula $C_{35}H_{50}O_{10}$ and the name "Nerin" are tentatively suggested for the substance.

The substance has no action on Fehling's solution. After hydrolysis, either with hydrochloric acid or with emulsin, it reduces Fehling's solution. The sugar formed appears to be an aldo-hexose. Quantitative studies by Lane and Eynon's method after hydrolysis with emulsin as well as with hydrochloric acid show that in each case, one gram molecule of the glucoside yields one gram molecule of a hexose calculated as dextrose. The substance is therefore a Beta glucoside.

Castor, croton, jatropha and jequirity—A comparative microscopic study of the prismatic cells in the outer coats of castor, croton, jatropha and jequirity seeds has been found to be of use in their identification.

The coats are cleared by immersion in 5 per cent potassium chlorate in dilute nitric acid over a boiling water bath till the colour is bleached and the tissues are softened.

(i) *Cross-sectional view at the top*—The cells in all four are polygonal in shape, about 17 micro-millimetres in diameter in castor, croton and jatropha and about 9 micro-millimetres in diameter in jequirity. The lumen is more or less circular in castor seed,

slit-like in jatropha and slit-like with radiating creases in croton and jequirity.

(ii) *Side view*—(a) *Length*.—The cells are about 160 micro-millimetres long in jequirity, about 250 micro-millimetres long in castor, about 300 micro-millimetres long in croton and about 400 micro-millimetres long in jatropha.

(b) *Width*.—In castor and croton the cells taper in width towards the bottom, the top width being about 17 micro-millimetres and the bottom width being about 8 micro-millimetres. In jatropha the tapering in width towards the bottom is less abrupt—the width at the top being about 17 micro-millimetres and the width at the bottom being about 12 micro-millimetres. There is no appreciable tapering in the width of the cells in jequirity which are about 9 micro-millimetres wide.

(c) *Lumen*.—All the cells in castor seed show a uniform lumen of about 3 micro-millimetres diameter and all the cells in croton show a uniform lumen of about 1 micro-millimetre diameter, whereas the cells in jatropha and jequirity show a uniform lumen varying in width in different cells from about 1 to 6 micro-millimetres in jatropha and about 1 to 3 micro-millimetres in jequirity.

(d) *Walls*.—The cell-walls in castor and jatropha show fine transverse striæ giving the cells a ribbed appearance. These striæ are not noticeable in the cell-walls in croton and jequirity and the cells do not show a ribbed appearance.

Yellow oleander shells.—The main frame work of yellow oleander shells consists of characteristic fibres which

are of use in identification. The clearing is done by a method similar to that described above.

The cells from yellow oleander shells are sclerenchymatous fibres, spindle shaped in appearance and varying in length from about 150 to 300 micro-millimetres and in width from about 10 to 15 micro-millimetres. The fibres have pointed ends on both sides and a uniform lumen of about 2 micro-millimetres diameter. The fibres may be stained with phloroglucinol and hydrochloric acid or with carbol-fuchsin.

Quinine.—Solutions of quinine yield amorphous precipitates with iodine in potassium iodide, but we found that in strongly acid solutions (about 5 N) characteristic micro-crystalline precipitates are obtained. The following micro-chemical reagent was devised and found to be useful as a test for quinine.

Micro-chemical reagent for quinine.—The reagent is prepared by mixing, in a measuring jar, 5 millilitres of decinormal solution of iodine in potassium iodide with about 11 millilitres of concentrated hydrochloric acid (A.R.) and making up to 25 millilitres with distilled water or preferably with glycerol instead of distilled water. Glycerol has the advantage of preventing with codeine solutions the formation of crystal which may be confused with those of quinine. Further, with glycerol, the slide may be kept for one or two days without drying up.

A drop of the suspected alkaloid dissolved in 5 N. hydrochloric acid placed on a slide with a drop of the above reagent gives, in the presence of quinine, sheaves of fine needles starting at the line of junction of the

two drops and gradually spreading into the rest of the solution. The shape of these crystals under the microscope appears to be very characteristic of quinine.

Determination of quinine in solutions.—The constancy of the crystalline form and the fact that even very dilute solutions of quinine gave insoluble crystalline precipitates with acid solutions of iodine showed that this reaction could be used for the quantitative determination of quinine in solutions, if interfering substances are absent.

An N/50 solution of iodine in about 5 N hydrochloric acid was prepared by taking in a 100 millilitres flask about 45 millilitres of concentrated hydrochloric acid (A.R.) adding 20 millilitres of N/10 iodine, cooling and making up to the 100 millilitre mark with distilled water. The solution was standardized with sodium thiosulphate solution (N/50). Working with known quantities of quinine in 5 N hydrochloric acid and adding to them a slight excess of the above iodine solution, filtering through asbestos and titrating the excess of iodine in the filtrate, we found each molecule of quinine to be exactly equivalent to four atoms of iodine. Using this information, it has been found possible to determine accurately the concentration of quinine in unknown solutions.

Determination of strychnine.—The above method was found to work equally well with strychnine solutions, one molecule of strychnine being found to be exactly equivalent to four atoms of iodine.

C. Animal Poisoning Cases.

Particulars of two cattle cases are given below :—

Madar juice.—Two buffaloes were stated to have been poisoned to death

and the suspected poison was sent to us for analysis. We obtained from it the reactions of madar juice.

Oleander.—A man had a brain wave and conceived the idea of offering human excrement as a bait for poisoning buffaloes. He mixed some poison in faecal matter and offered it to a buffalo. This particular buffalo, however, declined this apparently kind offer. Some onlookers grew suspicious and reported the matter to the police who sent the material to us. We obtained from it the reactions of oleander.

D. Miscellaneous Medico-Legal Cases.

Examination of wires.—Suspected stolen wires which are of the same diameter as the original wires may be compared under the comparison microscope and in many cases a decisive answer can be given as to whether the suspected wires are derived from the same source of manufacture as the original wires. In the process of manufacture the wires acquire minute lands and grooves due to slight imperfections in the dies through which they have been drawn to the thickness required. These lands and grooves are similar to the rifling marks produced on a bullet and the comparison microscope may be used to establish the identity or otherwise of the source of manufacture of two pieces of wire. I am indebted to the Deputy Inspector-General of Police, Railways and Criminal Investigation Department, Madras, who provided me with an extract from the *Bihar C.I. Gazette* (dated the 2nd April 1937, Part VIII, paragraph 95) which contained this information. In old rusty wires and wires which have received a coating of tin, the markings of the original die may be obscure. We found that immersion in hydrochloric

acid for a few minutes dissolves out the copper oxide or tin without appreciably affecting the copper and leaves the original markings sufficiently distinct for comparison purposes.

MENTAL HEALTH AND RELIGION.

A Changed Outlook.

The following note appears in the *Lancet* of August 6 :—

The opinion of Prof. Jung, that for many persons a sound personal attitude towards the eternal is essential for mental health, has not hitherto found many supporters among the leading psychotherapists of the world. Many practising in this country have shown that they regard religion as a side-track in analysis; the view has even been freely expressed that, until the patient's religious experience has been analysed away, he is not completely cured. On the Continent formulated theories, as distinct from clinical practice, have largely left religion out of account. But at the International Medical Congress for Psychotherapy, held last week at Oxford it emerged that the outlook is changing and that more and more of those whose life-work is the attempt to adjust mental and emotional disturbances are coming back to the idea that religious consciousness is indispensable to a large number of patients, especially in later life. The task of the psychotherapist is, to a large extent, that of an intermediary, an interpreter of an experience in which the patient adjusts himself to the claims of something within himself, quite distinct from his own ego, that leads him to appreciate the real values behind social and natural

laws. As he proceeds with its adjustment, his individuality grows outside the narrow bounds of the self into a creative relationship with the whole of life. Dr. William Brown, who has long been an exponent of this view, said bluntly that the medical psychology could no longer do without philosophy. Dr. H. Neugarten showed how the analyst can help a patient to reorientate himself by a new appreciation of collective values, and to free himself from the primitive religious forms with which he finds himself in contact after the spontaneous experience of "rebirth". Both the analytic and the religious experiences, he said, deal with a widening of consciousness and meet in the recognition of an inner law of living. Prof. Jung, in answering a number of questions at the end of the conference, pointed out that the great religions have all been preparations for death as a goal. Just as the neuroses of the first half of life spring from a refusal to face life, so those of the second half spring from refusal to face death—or rather, to face the mental development which a man needs to equip him for that adventure. It is, he added, an insanity of the white man that he has lost the religious order of life. Until he finds it again he will scarcely be healed of his troubles, and it is for the psychotherapists, in collaboration with religious people of every calling, to help him to do so.

PUBLIC HEALTH AND NUTRITION AND GROWTH IN INDIA'S POPULATION.

The population of India, as a whole, is likely to reach by 1941 a figure approximating to 400,000,000. So far as the existing trends indicate, there is little reason to doubt that this figure will be reached. This is what the Public Health Commissioner says in his latest annual Report for the year 1936.

Since 1931, when the last census was taken, India has comparatively remained free from violent outbreaks of epidemic diseases and, during the same period, the annual balance of births over deaths has been consistently favourable to progressive increase of population. During 1936 the number of births was nearly 280,000 higher than that for 1935. On the other hand, the number of deaths was less by about 200,000 so that the estimated population for 1936 shows an increase of about 3,600,000, as compared with that of the previous year, and stood at about 282,000,000. Between the census of 1931 and June 1936 the actual increase has been 6.1 per cent. Assuming the same rate of growth during the next five years, the increase in population during the decennium 1931-41 is, therefore, likely to be something over 11 per cent or the total population nearly 400,000,000.

In trying to estimate the possible trend of events in India, consideration must be given to a number of factors all of which are of importance. These include the low standard of life of the majority of the people, the large additions to numbers amounting at present to about 35 to 40 millions per decade, the high toll of life and suffering taken annually by epidemic and other preventable diseases and lastly the question of food production.

More and Better Food.

Available statistics show that, during the year 1936-37, of the area cultivated in British India, net area actually sown was about 232 million acres, while the current fallows were over 49 million acres. Of the area uncultivated, 154 million acres were culturable waste other than fallow, and 155 million acres were not available for cultivation. The total area under food crops was about 217 million acres, of which a little more than 204 million acres were under food grains and the balance under other food crops. A comparison of these figures with those for 1935 shows that increases were recorded in every province.

The resources of India are immense, but they will become available for the betterment of the people only by a well-planned organization of economic development.

Agricultural irrigation and veterinary research and the application of their results to the problems of the country are gradually being extended both at the Centre and in the Provinces, and these efforts are already bearing fruit. Agricultural research, for example, has within recent years covered a wide field, such as protection of crops from pests and diseases, irrigation and fertilizers, soil examination and what is even more important, the question of co-ordination of agricultural and nutritional studies for the improvement of human nutrition, is now being actively pursued.

Nutrition Studies at Coonoor.

The nutritional studies, which had been carried out during the past two

Extracts

or three years, have been mainly concerned with (i) dietetic surveys in order to ascertain the actual state of nutrition of the people; (ii) analysis of common Indian food-stuffs for the purpose of determining nutritional value; (iii) experimental work in controlling institutions in India for the discovery of suitable cheap methods of improving nutrition; and (iv) training of medical and public health personnel in general nutrition work and in the carrying out of propaganda on the same subject.

A study has recently been made at the Nutrition Research Laboratories, Coonoor, of the food supply and the nutritional requirements of the population of the Province of Madras, and the conclusion reached that the food available is just sufficient to cover the energy needs of the people, provided it is evenly distributed and that the average diet, which consists mostly of cereals, is lacking in animal protein, mineral salts and vitamins, which are so essential for the proper physical functioning of the body. Milk, eggs, fish and meat would supply the required animal protein, whilst green vegetables and fruit provide essential vitamins and mineral salts. These articles, which have been termed "protective foods" are, however, relatively more expensive than cereals and ordinarily they are eaten in very small quantities or entirely absent from the diet.

These investigations are of particular value, because of the attempt made to assess the actual position in regard to the nutritional requirements of the population, which include the provision of adequate quantity of food and of a desirable level of quality, and the remarks apply equally to most parts of India. The investigations have also demonstrated a widespread

prevalence of conditions associated with the state of sub-normal nutrition. In the circumstances, the urgent need at present appears to be the formulation of methods by which the production of "protective foods" can be greatly increased and their consumption encouraged.

How Research is Helping

The general poverty of the Indian masses makes it essential to explore every available method, which will help to improve the present state of malnutrition. Recent researches in the Nutrition Research Laboratory in Coonoor have shown that, in regard to such an essential article of diet as milk, substitutes such as calcium lactate may be employed which, from the point of view of cost, may be well within the means of a very large section of the community, the amount sufficient for a child costing only half an anna per month.

Experiments have also shown that a good supply of vitamin A, the deficiency of which in the Indian diet is responsible for much of the prevalent ill-health and malnutrition, can be had in red palm oil derived from the fruit of a West African palm, at a third of the cost for which it is purchasable in the form of codliver oil.

A small, but successful, experiment in the cultivation of the red palm has been carried out in Negapatam in South India. The climatic conditions of certain parts of South India approximate closely to those of Malaya, where the palm is grown extensively and if it can be successfully cultivated in these areas, the supply of cheaper vitamin A so obtained would be of the greatest advantage to India.

Boys Outnumber Girls.

The total number of live births recorded in British India during the year was nearly 10 million, the rate per mille working out at 35.4. Male births were a little over 5,000,000, the number of males born per hundred females being 108. Male births outnumbered female births not only in British India as a whole, but in every province. This phenomenon is common to most countries; but in other parts of the world, the ratio is usually about 106 males to 100 females.

The birth rate per mille based on married female population between the ages of 15 and 40 in British India is 212.5. This figure is almost double of that in England and Wales, where it is only 111.9. The high fertility rate in this country has, therefore, a close bearing on the growth of population in spite of the fact that mortality rates remain at a high level.

Deaths during the year were nearly 6½ million. It may be said that throughout India during 1936, conditions were relatively healthy. The death-rate works out at 23 per mille, or 1 per mille less than for 1935; the male and female death-rates were 23.0 and 22.2 respectively.

Infantile Mortality.

The infantile mortality rate for the year for British India was 162 per mille. Male infantile deaths were 170.9 per mille and female infantile deaths 153.1, and the still-births recorded were 21.2 per mille of live births.

Of 46 countries of the world for which the infantile mortality is available, 40 recorded in 1935 rates lower than that of India, the remaining five being the Strait Settlement, Rumania, Chile, Ceylon and Malta. The range of variation in the infantile mortality

rates lay between 32 per mille for New Zealand and 286 per mille for Malta, whilst nearly half of the forty countries recorded rates over 50 per cent lower than that of India. This comparison indicates how far behind India is in regard to measures for the protection of the infant lives.

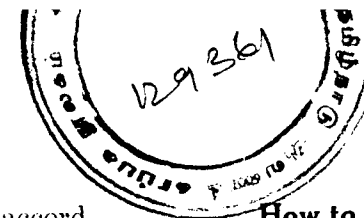
Statistics reveal that about 47 per cent of the total infantile mortality in British India takes place within the first month of life. The subsequent periods 1 to 6 months and 6 to 12 months are relatively less fatal. Infant mortality during the first month of life is largely dependent on factors influencing ante-natal life, particularly so in the case of deaths within the first week. During 1936, the deaths under one week formed 28 per cent of the total infantile mortality and 60 per cent of the deaths within one month.

India and the Rest of the World.

A study of the mortality figures for British India shows that about 49 per cent of the total mortality in a year is among those people who are ten years of age, whilst the corresponding figure for England is only 12 per cent. During the first year of life India's proportional mortality is about 3½ times that of England. At the next period, between 1 and 5 years, it is five times greater and between 5 and 10 years it is three times as high. About 25 per cent of the total deaths were among infants under one year, the English figure being about 7 per cent. Another significant fact is that, whilst in England women have lower mortality rates than men at all ages, in India the female death rate exceeds that of the male during the reproduction years, 15—40.

Blindness in India.

A reference is made in the Report to the prevalence of blindness. The



number of the blind in India, according to the 1931 census, was about 600,000 but probably this figure is under-estimated. The main causes of blindness in this country, according to the Professor of Ophthalmology in Madras Medical College, are (a) in children: keratomalacia, ophthalmia neonatorum, congenital syphilis and hereditary blinding diseases; (b) in adults: cataract, various optic nerve diseases (mainly syphilitic), ulcers of the cornea, glaucoma and trachoma; and (c) in children and adults: irritant remedies and small-pox.

As regards keratomalacia, the Director of Nutritional Research has shown conclusively that this disease is due to certain deficiencies in the diet of the people. During recent years a great deal of investigation has been done in respect of diet deficiencies, and if only these results could be applied in practice, much blindness could easily be prevented. For small-pox, another important cause of blindness, there is an excellent preventive weapon in vaccination but, says the Public Health Commissioner, only too frequently does one still find small-pox among children ending in complete or partial blindness because of the ignorance and carelessness of the parents.

How to prevent It.

Essential preventive needs include (a) a considerable expansion of the rural medical services whereby the expert instruction received at the Ophthalmic teaching centres in the Medical Colleges and Schools can be rendered readily available; and (b) extension of the maternity and child welfare work in the rural areas.

Attention is also drawn in the Report to the great defects in the compilation of the vital statistics of India and suggestions are made for their improvement. In a number of provinces urgent need exists, says the Report, for the formation of a bureau of vital statistics in the office of the Director of Public Health. For, all public health and medical activity, if it is to be properly assessed, must be based on reliable statistics.

Task before Governments.

The solution of the problems associated with physical health and social environments is complicated in India, says the Public Health Commissioner, by the evil of ignorance and poverty to which is commonly added a fatalistic outlook. "Nothing is more certain than the fact that the physical advancement and health of mankind is dependent not upon a doctor's stunt."

—*The Hindu, August 27, 1938.*

EFFECTS OF ALCOHOL ON DIGESTIVE ORGANS.

Sir Arthur Hurst, who delivered the special address, said that recently he had been interested in the effects of alcohol on the digestive organs, and had had the opportunity of making some observations on comparatively well-to-do patients. In May of last year a patient who had habitually taken too much alcohol, particularly

in the way of cocktails before dinner, came under his observation. He had symptoms of liver disorder. A test meal showed that he had no gastric juice. Although he had been indulging in alcohol for many years, it was found that on washing out the stomach and putting him on a very light diet all the gastric mucus

disappeared within a few days and a normal secretion returned. He then asked permission to go out to celebrate a happy event and forgot his promise to abstain from alcohol. On his return his stomach was found once more to be secreting mucus and there was no free acid. After a fortnight's treatment he was right again. Sir Arthur had made similar observations on a number of other people, and they had shown how readily alcohol upsets the digestive organs, throwing the stomach completely out of action, and yet it only required that the patient should cease taking excessive amounts of alcohol and the stomach thereupon recovered its function, even after years. He had carried out the experiment—which some might deem questionable in ethics—of persuading half a dozen of his students, whose livers had been shown to be completely normal, to go on what was known as the "binge" one evening. The following morning they showed definite hepatic insufficiency, and two of them were unable to face the day's work. From this example it might be imagined what the constant taking of alcohol, particularly on an empty stomach, would do for the liver—he did not mean the bringing about of cirrhosis, which was a matter of years; he meant minor impairments of liver function.

Sir Arthur Hurst confessed that he himself was not a teetotaler. He did not think that a moderate amount of alcohol during meals, and a still more moderate amount after meals, did harm. But to take alcohol before meals was entirely wrong. It was a barbarous custom. In the Colonies the habit of drinking cocktails and whisky at sundown was the cause of a large proportion of the invalidity

and ill-health of English people living in the Tropics. Before the war it was uncommon for young people in this country to take alcohol at all. Now-a-days many of them went out to cocktail parties every evening, and then to dances, with more drinking. The result was that a large number of young men and women were suffering from gastric and hepatic disorders due to too much alcohol. In view of the ill effects of small amounts of alcohol on the liver and stomach of a healthy person, it seemed "perfectly mad" in the case of a child, or an adult either, suffering from an acute infection to add to the damage produced on the liver by the infection the damage produced by doses of alcohol.

He was sometimes asked what the "tired business man" should take in substitution for cocktails in the interval between the end of his day's business and his evening meal. The best substitute was to lie down for half an hour, thereby overcoming his fatigue without any stimulus to an already exhausted nervous system to do more than it ought to do. If a stimulant must be taken he would recommend tea, or what was known as "tomato cocktail" (non-alcoholic). He wished to impress upon general practitioners the extreme importance of being honest with their patients. He had found doctors who were shy about talking to their patients who drank too much. The trouble was that often these patients felt well at the time, even while the damage was being done. It was not too difficult, even for people who had been drinking too much, to become teetotalers on a warning from their doctor.

—B. M. J., August 6, 1938.

LORD HORDER ON QUACK MEDICINE TRADE.

In the House of Lords on July 26 Lord Horder called attention to the enormous growth in the quack medicine trade and to the incongruity of exercising no control over the deleterious effects of such trade upon health at a time when a serious effort was being made to improve national fitness. He also moved for papers. He said he had been told that if he, a doctor, raised this question he would be charged with trying to create a monopoly for his own profession and with depriving the poorer classes of cheap cures. If there was any monopoly it lay, in his view, with the trade that bled the public of £25,000,000 or £30,000,000 a year—nearly as much as the total spent on all our hospital services. He was seeking to break up a formidable and largely unscrupulous monopoly which, judging from the exclusion of patent and proprietary medicines and foods from the Food and Drugs Bill, successive Governments seemed almost to go out of their way to guard. If the doctor thought only in terms of hard cash he would benefit from this unprincipled trade, which eventually brought him more patients; ultimately even the undertaker benefited sooner and often than he need. Only now was there something better to put in the place of these dubious "specifics." We had the finest health services in the world. The slogan "Use your Health Services" was one of the most intelligent he had heard. His main reason for pressing the matter at this time was his concern for the success of the national fitness movement. For every £100 the Government spent in making the people health-conscious the quack medicine mongers paid £1,000 in making them disease-conscious. A few patented and proprietary things were good, and the

claims made for them reasonable; a great many did little good or harm, and were sold at fantastic prices; and now and again something was sold that did definite harm. There were an enormous number of preparations that were fraudulent in varying degree. The great increase in advertising media was capable of appalling results in its mass suggestion on the country's health and morale. The advertisements had become a graver danger than the medicines they served. The debate was continued by Lord Addison.

Viscount Gage said that investigation had borne out the fact that improper use of substances in themselves harmless was a distinct danger to the health of the country and handicapped the work of the medical profession. He was ready to agree that it might constitute an obstacle to national fitness. The problem of the dangerous drug had been solved, except possibly for new drugs which were being put on the market. It had been said that the public were being used as a guinea-pig by unscrupulous manufacturers. He was informed that there was no method of foretelling the effect of some compounds, and that the effects on the human body could only be ascertained by experiment. That constituted a positive danger, but it was difficult to put absolute restriction on new inventions. The majority of the substances were made by firms of the highest repute, which, in their own interests, saw that the precautions taken were very complete.

The real difficulty arose from products and substances which were not in themselves harmful, but the improper use of which constituted a

danger. Aspirin, used properly, provided relief from a number of minor ailments, but used to excess it was not beneficial. The inherent difficulty in dealing with certain substances was that the real fault lay with the individual who used them. If people did not use the immense State-assisted medical schemes, and preferred to diagnose and treat their own complaints, it was largely their own responsibility if they suffered in consequence. They were encouraged to do so by very carefully worded advertisements. In theory there was a case for controlling the advertisements, but it was not easy to design forms of words which could not be evaded. He was not attempting to exclude the possibility of some legislation on certain lines suggested, but it was difficult to guarantee that it would be effective. Repression alone was one of the most dubious of all lines of progress. The Minister of Health would examine what Lord Horder

had said and see if anything could be done to incorporate in the educational side of the national fitness movement some warning against the abuses of drugs generally. Perhaps Lord Horder might still be unconvinced by his reply. If so, possibly he would like to have a try at legislating himself. In regard to legal matters the Government would be pleased to place all their resources at Lord Horder's disposal, but on medical matters they had no higher sources of information than Lord Horder himself commanded. The Government's attitude must, to some extent at any rate, be dictated by public opinion, because in these matters the public must have the last word. The Government were perfectly prepared to lay any papers for which Lord Horder might wish.

Lord Horder asked leave to withdraw his motion for papers, and this was agreed to.

—B. M. J., July 30, 1938.

PREVENTION OF DISEASES IN INDIA

IMPORTANCE OF VACCINATION

Malaria's Heavy Toll in 1936

Of a total of nearly 6,400,000 deaths or 23 per mille in British India in the year 1936, which is the latest year for which consolidated figures are available, approximately 160,000 or 0.6 per mille were, according to the Public Health Commissioner, from cholera, 105,000 or 0.4 per mille from small-pox, 13,000 or 0.05 per mille from plague, 3,600,000 or 12.7 per mille from "fevers", 280,000 or 1.0 per mille from dysentery and diarrhoea, 490,000 or 1.8 per mille from respiratory diseases, and 1,730,000 or 6.1 per mille from other causes.

Deaths from plague during the year were the lowest on record since, 1896 when plague first came into India. Of the provinces, the N.W.F.P., Delhi, Orissa, Assam and Ajmer-Merwara were completely free of the disease, the United Provinces was the worst affected, recording about 5.5 per cent of the total mortality in British India.

Cholera mortality also fell during the year, by about 57,000. The decrease in incidence was common to most provinces, the important exception being Bengal where the mortality was 1.5 per mille or 25 per cent higher than that of the previous year.

Extracts

India, however, unhappily still continues to live up to its evil reputation of being *the* important world reservoir of cholera infection. The reasons, it is stated, for this comparative failure to effect satisfactory control of the disease in spite of vigorous campaigns are that large areas of the country do not yet possess any local public health staffs, secondly, even where health staff exist, their personnel is often numerically inadequate to cope with the large populations entrusted to their care, widely scattered as the people are in numbers of small villages, further, without safe water supplies and an efficient system of conservancy, it is almost impossible to make appreciable progress in the effective control of the spread of infection in rural areas.

In spite of these handicaps, however, Provincial Public Health staffs have generally done good work, particularly within recent years in the sanitary control of the numerous fairs and religious festivals, which are held all over the country. Whilst previously it was all too common for explosive outbreaks of cholera to occur at these centres and to be followed by widespread infection, the elaborate precautionary measures now generally in force, have largely been effective in preventing dissemination of the disease from these dangerous foci.

Philippines Eliminate Small-pox.

The persistence of small-pox infection and the occurrence of periodic severe epidemics in different parts of India make it clear, says the Public Health Commissioner, that although in vaccination we possess a powerful preventive weapon, that weapon has at no time, during the past, been used as effectively as it might have been. In the Philippines on the other hand

the rigorous enforcement of vaccination has been followed by the almost complete elimination of the disease. "After vaccination of the inhabitants of the six provinces in the vicinity of Manila, which had an annual mortality of 6,000 from small-pox, the deaths from this disease were reduced to insignificant number. In Manila, with a population of over 250,000, not one death from small-pox occurred in a period of seven years. More than 10 million vaccinations were performed between 1905 and 1915 without loss of life or limb, showing that vaccination in itself is practically unattended with any risk."

And India?

Yet there remains the deplorable fact that India recorded over 100,000 small-pox deaths during 1936. Amongst the individual provinces, Bengal reported the largest mortality, deaths numbering about 46,000 or 4.4 per cent of the total recorded in British India. Compared with 1935, the increase was as high as 800 per cent.

The potency of the vaccine lymph prepared in the different laboratories in India, is high and within recent years, an appreciable rise has occurred in the numbers of primary vaccinations and re-vaccinations performed by the provincial vaccination staffs, which during 1936 totalled over 11 million primary vaccinations and over 13 million re-vaccinations. The year's total is the highest annual figure on record, except that for 1935. These figures are no doubt very large, but the population of India also approaches a total of 400 millions.

Leeway to be Made Up

But in spite of these efforts only about 49 per cent of infants available

for vaccination in British India were successfully vaccinated during the year. This figure indicates how much more remains to be done and when it is noted that in Assam, Bengal, Bihar, Orissa and Madras the percentages are as low as 22 to 37, it is evident that the vaccination staffs of these provinces have still got a large leeway to make up, but unfortunately no Public Health Department is sufficiently manned to enable it suitably to deal with the whole of the population under its control.

Further, vaccination is compulsory only in about 75 per cent of the towns and in less than 50 per cent of the rural areas and the enforcement of law leaves much to be desired even in compulsory areas. Since the annual numbers of the vaccinations performed are not sufficiently large to protect the population, the enforcement of compulsory vaccination of young infants alone, says the Public Health Commissioner, cannot banish the disease from India and re-vaccination should be done before school-age, and again between ten and twelve years of age. There can be no question that if compulsory re-vaccination were generally enforced, small-pox need not be a serious cause of sickness or mortality.

The omnibus group of diseases included under "fevers" was responsible during the year for nearly 56 per cent of the total mortality. It no doubt mainly consists of deaths from malaria, but it also includes large numbers of deaths from other diseases in which fever is prominent symptom.

100 Millions suffer from Malaria.

An estimate is made that the annual deaths from malaria in British India total 1½ millions and that about

a hundred million persons suffer from this disease each year. During the past decade, cholera, small-pox and plague, the three infectious diseases which generally attract most notice, were together responsible for about 357,000 deaths each year, a figure which is less than one-third of the annual toll of life taken by malaria.

The question of malaria control in India is mainly a rural problem, because not only do 89 per cent of the people live in rural villages, but the incidence of the disease in the villages is much higher than that ordinarily found among the urban populations.

"No satisfactory general method of bringing malaria under rapid and effective control in rural areas at a cost within the means of the people, has, however, been evolved in any malarious country in the world", as the Director of the Malaria Survey of India remarks. The policy to be adopted must therefore be directed to such amelioration of conditions as may be practicable rather than to expensive methods of control, and with this end in view, every effort should be made, in the first place, to encourage the consumption of quinine.

Central Grant for Anti-Malaria Work.

A feature of the year was the intensive anti-malaria work started in Delhi, with funds provided by the Government of India with the object of eliminating, if possible, malaria from the city, so that the Imperial Capital may, apart from benefits conferred on local inhabitants, serve as an example to the rest of India, in regard to the practical application of scientific knowledge.

In addition, a special grant of Rs. 10 lakhs was given in 1935-36 by the

Government of India to the Indian Research Fund Association mainly for anti-malarial work. Of this amount, Rs. 2 lakhs was sanctioned by the Association for anti-malarial work in Delhi rural areas and the balance allotted as follows:—

(a) Rs. 2 lakhs to Madras Presidency, (b) Rs. 2 lakhs to the United Provinces, (c) Rs. 1 lakh to Bengal, in each case on the conditions that an equivalent amount was sanctioned by the Provincial Government and that the expenditure on approved schemes should be spread over a period of five years, and (d) Rs. 1 lakh to the Assam Government for the Assam Medical Research Society, which is actively engaged in malarial research and is supported financially by the Provincial Government.

Cinchona Plantation Possibilities.

It is estimated that India's probable annual requirements of quinine for the purpose of effective mass treatment amount approximately to 600,000 lbs. Her present consumption is only about a third of this quantity of which nearly 110,000 lbs. are imported and 90,000 lbs. are produced in the country. Any cheapening of the cost of quinine is, therefore, dependent on a considerable expansion of India's production. Under the new constitution, cinchona is a provincial subject, but the Government of India had recently sanctioned an investigation in regard to the areas in India which would be suitable for cinchona cultivation and the cost of cultivation in those areas. This investigation has already been carried out.

There is strong evidence, says the Report, that tuberculosis, particularly of the pulmonary type, has markedly increased within recent years in cer-

tain areas. The most urgent need is the provision all over the country of a chain of tuberculosis clinics where skilled treatment and advice can be obtained from trained staffs of medical officers, nurses and home visitors, increase in the number of beds in hospitals and establishment of sanatoria for tuberculosis cases and the institution of tuberculosis colonies and settlements at a later stage.

National Anti-Tuberculosis Campaign.

No national effort on these lines and of the magnitude necessary for this country can be successfully undertaken without the fullest co-operation of the people, of the Provincial Governments, local authorities and voluntary agencies. The work of voluntary organisations like the Tuberculosis Association of Bengal, has been largely responsible for the development of public opinion particularly in large cities like Calcutta, but there is need for multiplying such efforts throughout the country. Above all, these schemes require financial support, and the hope is expressed that the recent appeal launched by Her Excellency Lady Linlithgow on behalf of "The King-Emperor's Fund" will receive the generous support of every one interested in the welfare of India's people.

Coming next to leprosy an estimate is given that there are no less than five million cases of leprosy in the world and that, of this number, approximately a million are to be found in India. Fortunately, one important feature of the disease in India is that about two-thirds of the cases are relatively mild and that "in some of these mild cases the disease is of little clinical or public health importance".

Leprosy Incidence.

In India, it has been found that the incidence of the disease is highest along the eastern coast of the peninsula in the western parts of Bengal. From the eastern belt of high prevalence the disease gradually diminishes in incidence to the north and west, until a fairly wide area of comparative freedom from the disease is reached, comprising the northern half of Bombay Presidency, including Gujarat, Rajputana, the western portion of the United Provinces, the Punjab, the N. W. F. Province, Sind and Baluchistan.

Incidence is relatively higher among males than among females, the proportion being about two to one. The disease is also found generally to assume a more severe form amongst males. The work of leprosy relief in India as in other countries is shared by official and non-official organisations. But the problem is so vast that existing organisations have so far found it impossible to produce any very striking reduction in the prevalence of the disease.

Leprosy Clinics and Colonies.

Within recent years, a considerable expansion of treatment activity has resulted from the provision of leprosy clinics in different parts of the country, but whilst present methods of treatment are of undoubted value in a proportion of cases, the leprosy problem cannot be solved by treatment alone.

While the segregation and isolation of all infective cases of leprosy, which probably number between 300,000 and 400,000 is not practicable, attention is drawn in the Report to the development of rural leprosy colonies as a hopeful line of preventive work in areas where the incidence of the disease is high. A new Forest Farm Colony,

which is a co-operative undertaking, Government, the American Mennonite Mission and the Mission to Lepers all being represented on the Board of Control, has already been started in the Central Provinces

Another affliction to which attention is drawn in the Report is cancer. Until recently the general impression in India has been that cancer claims a much smaller proportion of deaths in this country than in Europe and America, perhaps because medical and public health reports generally make little mention of this disease. In order to obtain more accurate information, an enquiry was started about four years ago, under the auspices of the Indian Research Fund Association, by an examination of the records of the larger teaching hospitals.

Early Cancer in India.

Whilst it was recognised that hospital statistics would fail to give a correct picture of the general community incidence of a disease, this method of approach appeared to be the only one practicable. The inquiry, which extended to every province, including Burma, revealed that the age of maximum incidence of cancer in India was at least ten years earlier than in Western countries and Japan and in the case of the female generative organs earlier by 15 to 20 years.

Cancer of the mouth is more common among males than among females and among Muslims than among Hindus. Another interesting feature is that this form of cancer has its lowest incidence in the Punjab where the habit of chewing *pan* is not so common as in other parts of India. Incidence of the disease increases as one goes eastwards and southwards.

The conclusion was reached that if more reliable data were available the

prevalence of cancer in India would be found to be little different from that of Western countries. Although much remains to be discovered regarding the causal factors of cancer, two facts stand out prominently. One is that the treatment of the disease, in accessible sites, gives satisfactory results if a diagnosis is made early. The other is that few cases consult a doctor at an early stage of the disease.

Though no definite campaign has so far been planned, radium is available in four or five institutions, including the Lady Hardinge Medical College, New Delhi, the Radium Institute, Patna, Bihar, the Chittaranjan Seva Sadan and the Bengal Cancer Institute, Calcutta, and the Barnard Radiological Institute in Madras.

—*The Hindu, September 5, 1938.*

"PROFESSORS LAST"!

If I were founding a university—and I say this in all seriousness—I would found first a smoking room: then a dormitory. Students must live together in a rational and comfortable way. They must eat in a big hall, with oak beams across the ceiling and stained glass in the windows and a shield or tablet here and there upon

the wall to remind them of the men who went before them. Then, after all the dormitories, when I had a little money in hand I would establish a decent reading room and a library. After that if I still had some money I couldn't use, I would get some textbooks and hire a professor.

—*Stephen Leacock.*

TUBERCULIN TESTING WITH P. P. D.

During the two-year period following June 1934, the National Tuberculosis Association offered P. P. D. for sale at a reduced price for group testing with the understanding that reports would be returned for statistical analysis. By this means data were obtained for 85,709 first and second-strength tests among 56,688 individuals in thirty States and the District of Columbia and the group tests were summarized with the result that the individual differences of single groups were minimized. The percentage of positive reactors among the 56,688 persons tested with first and second-strength P. P. D. was found to be 36.4. However, a more representative index of tuberculous infection in the United

States was approached by adjusting the infection rates for age, colour, nativity and parentage according to the distribution of the population in the United States at the time of the last census in 1930. In this way, added importance was given to the high infection rates found among the adults and persons of foreign extraction in the groups tested, and the percentage of positive reactors was increased to 47.0 per cent.

Of the 56,688 persons included in this survey, 3,071 were tested with second-strength tuberculin only. The remaining 53,617 persons were tested with first-strength tuberculin and only 29,021, or 75 per cent of the 38,829 negative reactors, were retested with

second-strength tuberculin. Positive reactions resulted from 27.6 per cent of the first-strength tests and 16.9 per cent of the second-strength tests that followed negative reactions to first-strength tuberculin. However, there were 9,803 negative reactors to first-strength tuberculin who failed to receive second injections of second-strength tuberculin. Assuming that these would have shown positive reactions to second-strength tuberculin in the same proportion as those who did receive second-strength tests, there are at least 1,500 undiscovered positive reactors because of the failure to complete tests with second-strength tuberculin.

Type of group.—More than 18 per cent of those tested with P. P. D. were high-school students, 17 per cent were college students; 12 per cent were elementary school pupils; and 13 per cent came from clinics. Another 13 per cent were Indians, and less than 1 per cent were teachers, nurses, and doctors. The remaining 27 per cent came from miscellaneous or unclassified groups. Excluding the Indians reported, the highest infection rate was found among the 7,106 persons tested in clinic groups, with 53.2 per cent showing positive reactions to either first or second-strength P. P. D. The lowest percentage of positive reactors, 18.5, was found among the 6,622 elementary school children in the groups tested.

Geographic areas.—With the exception of the resort area, the states along the Eastern coast showed the greatest evidence of tuberculous infection, whereas the lowest percentage of positive reactors was found among the groups in the central states. The number of persons tested in each geographical area was not large enough to establish conclusive evi-

dence concerning the prevalence of tuberculous infection in each section, but it is interesting to note that the results of this study are in agreement with those found among students tested in colleges in various sections of the United States.

Urban and rural.—Tuberculin tests among 32,477 individuals were reported either typically urban or typically rural. Of the 22,688 persons classified as urban residents, that is, living in places with a population of over 2,500, 33.6 per cent were found to be positive reactors to either first- or second-strength P. P. D. There were 9,789 individuals included in the study of rural groups, of which 21.4 per cent evidenced tuberculous infection.

Age.—The reports included in this study indicated that there were fewer positive reactors proportionately among the children six years of age than there were at any other year of life following the sixth year of life, the percentage of positive reactors increased with age at an average rate of over one per cent for every year of life up to the age of 20. Adults 20 years of age and over included in the groups tested evidenced 34 per cent more tuberculous infection than the boys and girls reported under 20 years of age.

Sex.—Approximately the same number of males and females were reported to have had tuberculin tests with P. P. D. The males showed a slightly higher percentage of positive reactors than did the females, the adjusted rate for males being 48.3 and that for females 45.9 per cent. There was a larger proportion of male than female positive reactors to P. P. D. at almost every age group.

Contact and non-contact.—Almost 15 per cent of the total number tested

were reported to have had some definite contact with tuberculosis. The percentage of positive reactors among them was 54.2 whereas only 33.3 per cent of those for whom no history of contact with tuberculosis was reported showed evidence of tuberculous infection. The infection rate indicated for contacts under five years of age was three times that for non-contacts in the same age-group, but the proportion of positive reactors increased with age generally at a more rapid rate among the non-contacts than among the contacts.

Colour and race.—The Negroes and Indians seemed to be more sensitive to P. P. D. than the white persons tested. Of the white positive reactors in the groups tested with second-strength tuberculin following negative reactions to tests with first-strength tuberculin, 68 per cent were detected with first-strength tuberculin, compared with 75 per cent for the Negroes and 89 per cent for the Indians. White persons comprised 74 per cent of the entire number included in the study, and the percentage of positive reactors among them adjusted for age, nativity and parentage was 46.5. The Negroes tested showed only one per cent more positive reactions proportionately than did the whites, the infection rate for the Negroes adjusted for age being 47.8 per cent. The non-adjusted rate for whites was 15 per cent lower than that found for Negroes, but it was thought that the adjusted rates represented more closely

the prevalence of infection in the general population. The percentage of positive reactors found among the 7,159 Indians tuberculin tested was 72.4, an infection rate over 25 per cent higher than the adjusted rate found for the combined groups of all ages, colours and races included in the study. More than half of the Indians tested were found to be positive reactors at every age after the seventh year of life, and nine out of every ten tests at 20 years of age and over showed evidence of tuberculous infection.

Nativity and parentage.—Nativity and parentage seemed to be significant factors in tuberculous infection among the white persons tested. Of 31,318 native-born Americans of native parentage, 27.6 per cent evidenced tuberculous infection, whereas 38.4 per cent of the 6,674 native born of foreign stock and 61.2 per cent of the 814 foreign-born responded with positive reactions to P. P. D.

Unfortunately, the number reported for each country was too small for valid conclusions, but a notably higher infection rate was indicated for the foreign-born from the European countries than for those removed from the same country by one generation.

A Summary of the Results of Group Tuberculin-Testing with P. P. D. (Purified Protein Derivative) in the United States, Jessamine S. Whitney and Isabel McCaffrey, Am. Rev. of Tuberc., May, 1937.

CITY WORKERS' BUDGETS.

First Statistical Survey.

EXTRACTS FROM SPECIAL OFFICER'S REPORT.

The report of the Statistical Officer's enquiry into family budgets of industrial workers in Madras city has just been published by the Government of Madras. This is the first enquiry of its kind conducted in this Presidency.

The enquiry covers 641 budgets of families of workers in organised industries and 884 budgets of workers in unorganised trades (bidi workers, harbour coolies and hand cartmen).

Large Size of Family.

The average number of persons residing with the family is 6.03, made up of 1.78 men, 1.95 women, 1.18 boys and 1.12 girls. In addition, 0.18 persons are dependent on the family and receive regular or occasional monetary help from the head of the family though they live away from it, frequently outside the city limits. Thus the economic responsibility of the head of the family pertains to 6.21 individuals. It will be interesting to note that in the Bombay Labour Office enquiry of 1932-33, the average number of persons in a worker's family was found to be 3.70, and the average number of dependents living outside 0.65. The Madras labourer has, therefore, a much bigger family to support than his *confrere* in Bombay; and in fact, Madras is unique in this respect among cities in India in which enquiries into family budgets of industrial workers have been conducted.

Though the Madras labourer has, on an average, a bigger family to support than, for instance, the Bombay labourer, he has fewer dependents outside

the family to look after. While for every hundred persons living in workers' families in Madras, there are only three dependents living outside, in Bombay there are as many as eighteen dependents.

A study of the distribution of age of persons covered by the enquiry, especially of earners in the families is of some interest. The bulk of the male earners (70.53 per cent) are between the ages of 20 and 45. The age distribution of female earners displays more evenness and a not inconsiderable number of them, in fact as many as 34.92 per cent fall beyond the age group 40 to 45, while the corresponding percentage for male earners is only 16.56.

Average Income per Family.

The average income per family, taking all the 641 families is Rs. 37.5.11; 95.06 per cent of this sum is derived from employment. The greatest single source is the earnings of the husband amounting to 78.33 per cent. The wife is responsible for 5.57 per cent of the earnings, the children for 2.89 per cent and other members of the family for 13.27 per cent. The average income from other sources amounts for all families to Rs. 1.13.7 and represents 4.64 per cent of the total. The most important item in this group is the income from houses which accounts for 3.04 per cent of the total income. The other items in the group are (i) land which accounts for a meagre 0.29 per cent, (ii) gifts and presents which account for only 0.22 per cent, (iii) support from relatives and friends

Extracts

accounting for a bare 0.39 per cent, and (iv) others (unspecified) accounting for 1.00 per cent.

It is interesting to note that the relative contribution of the husband's earnings to the total income of the family tends to decrease as the income of the families increases. In the lowest income group, the husband's earnings constitute 94.18 per cent of the total income, while in the highest, they account for only 41.26 per cent. The relative contribution of other members of the family on the other hand increases as income advances. Though no definite trend is noticeable in the contribution of the wife and of the children, the percentage contribution of other members increases as the income of the families increases except in the last income group where there is a slight fall.

As regards income from other sources the only item which reveals a definite trend is income from houses. The relative contribution of this item to the total family income increases from 0.18 per cent in the lowest income group to 11.81 per cent in the highest. The average income per family from houses is Rs. 1.2.2. Of the 641 families, as many as ninety families derive income from this source and the average income per family from this source for these ninety families is Rs. 8.0.2. Houses are an important source of income in the higher income groups. For families with income above Rs. 50 per month, they account for as much as 6.88 per cent of the total income.

Expenditure on Food.

A characteristic feature of the monthly budget is the very high proportion of expenditure given to cereals; as much as 43.74 per cent of the total food expenditure is for this

group. The most important item of expenditure which in fact dominates the whole budget is rice which accounts for 40.08 per cent of the total expenditure. Meat and fish account for 11.18 per cent of the total expenditure and vegetables for 7.57 per cent. The percentage of expenditure on the other items are 5.53 per cent for milk, 6.31 per cent for ghee and oils, 5.78 per cent for condiments, 1.02 per cent for salt, 2.46 per cent for sugars, 1.37 per cent for coffee and tea, 5.05 per cent for liquor, 2.27 per cent for tobacco and 7.72 per cent for other foods including refreshments pansupari, etc.

There is a tendency for the percentage expenditure on cereals and pulses to decrease as income advances. The same applies to the group of condiments and salt and to a less extent to the group of vegetables. On the other hand, there is a noticeable increase in the relative importance of (1) milk, (2) ghee and oils and (3) other foods as income advances. The relative expenditure on meat and fish displays no pronounced tendency and fluctuates within narrow limits, the range of fluctuation being from 11.20 per cent to 14.94 per cent, but broadly speaking the tendency is for the percentage expenditure to be higher in the higher income groups.

Taking all the six hundred and forty-one families into account, the quantity of proteins is only 47.30 grammes per day per unit of consumption; only about 15 per cent of this is of animal origin and cereals account for nearly 69 per cent of the total supply. The intake of fat is again low, amounting to only 25.36 grammes per unit of consumption per day. There is, on the other hand, a disproportionately large supply of carbohydrates in the diet, the supply amounting to

495.92 grammes per day per unit of consumption. Almost the whole of this and in fact as much as about 93 per cent is derived from cereals and pulses.

The quantity of the diet is on the whole low. It is both insufficient and ill-balanced and is characterised by an excess of carbohydrates and a deficiency of proteins and fats. The amount of proteins is much below the physiological minimum requirements, that of fats is barely a third of the amount needed and the proportion of carbohydrates is too high.

Need for Propaganda.

The families in the highest income group can of course afford a diet which is even costlier than diet No. 1. But the real question is whether even if the families can afford a diet as costly as diet No. 1, they can be expected to go in for the right kind of diet if left to themselves. What is needed in

these matters is intensive educative propaganda among the working classes. A 'food circle' composed of enthusiasts in food reform can devote itself to a study of all the relevant literature on food, and endeavour to educate public opinion on this important question, by arranging to deliver lectures and distribute leaflets written in popular style among the working classes. If the leaflets are so worded as to appeal to the popular mind, and if they suggest reasonably good diets which will be within the means of the several sections of the working class families, they will indeed be very useful and the working classes will not be slow to respond to the appeal in the leaflets.

Next in importance only to 'food' the miscellaneous group accounts for 25.36 per cent of the total monthly expenditure of the family.

— *The Hindu, October 20, 1938.*

The Madras Medical College Co-operative Club, Ltd.

The College Co-operative Club has finished its first quarter and it is meet that we should take stock of its position and achievements, its drawbacks and its innovations.

The Club began unambitiously and almost insidiously on 1st July 1938, though it was formally inaugurated on 10th June 1938. Like all great things our Club had small beginnings. With but a bare three hundred in its coffers, it began its life, not because of its over confidence but because it felt, existence was a justifiable and long felt necessity. It was sure that ere long it will make itself felt, unostentatiously and in no uncertain manner gathering vim and vigour, due to the large hearted co-operation of the members of the College whom it has taken as its one duty to serve. Who will starve one's own child? No one, never a medico.

Such an institution is no innovation in colleges but its inception in an institution of such magnitude with its over-crowded curriculum, must be deemed a courageous step. The Club attempts at providing good tiffin and supplies, text-books, stationery, etc., at competitive and cheap rates at one's door steps as it were.

With but 800 and odd rupees Capital it has rolled on courageously for the past three months and will shortly complete its fourth. The one idea in its working has been the minimum of profit and maximum of attainable convenience. In this respect differing from other similar institutions, where

the idea of profit looms large. Yet financially are we at a loss? No. In but three months we have made a net profit of four hundred and odd rupees. Who will hesitate to help such an institution? The sporting Medico, the envy of every other collegian will never deny help to the deserving institution. It is inconsistent with medical intelligence, not to encourage useful growths.

The daily collections in the Cafe comes to about fifty rupees on working days. We catered to the Graduates' Reception with varying success, to other small parties with complete satisfaction and to Lt.-Col. Plumptre's farewell to the pleasure of all.

The stationery sales come round about five Rupees. Need you run, my friends, to Moore Market or Pachaiyappas when you need a pen, pencil, an eraser or a notebook or, for the matter of fact, when sent out of the class for not providing yourself with a tape. The prices of text books have fallen down considerably, in some cases, three or four rupees per book. We have transacted business in text-books to the extent of 7,000 to 8,000 Rupees. Subsistence and not profit has been the motto in this department. Many may complain of the unavoidable delay in getting some books. Who is to blame? I will put another question to you. The drunkard husband, spending his all at the tavern comes to his squalid house, spurns his crying and hungry children, beats his wife and demands food? She but puts on a vacant and woeful stare? Who is to

blame? What industry can grow or, for the matter of fact, live if it has not sufficient capital? Especially so when competition is rife, market old, and enterprise new?

Our books are not primers and annotations and selections costing *in toto* the huge sum of five rupees. Most, if not all, cost above ten and some thirty, too. How to stock or how to trade in such a department with but two hundred rupees capital. Deny not light to the growing plant. Water it while it is energetic and growing and wait not for testicular transplants.

More than all these monetary considerations, stands like a colossus, the spirit behind the institutions. "One for all and all for each." In this world of warring ambitions and interests, where might is right and strife is rife, the clarion call for unity, comradeship and understanding, deserves the attention of all, most of all Indians, but greatest of all youths, the intelligentsia and motive force of the world to be born. It is not meet friends, that we who speak umpteen languages, we who come from diverse places, dry as well as wet, we who belong to the multitudinous commu-

nities and castes should shoulder to shoulder join and work together in union, and develop a spirit of understanding and tolerance that will go a long way in the realisation of the ultimate ideals of humanity at large.

Barring all considerations of Mammon do you not feel proud in possessing an institution, which is yours, yours tooth and nail, a figment of your imagination, the child of your creation, yours to mar and make. Strangle not, starve not your child. Protect it from the inclemencies of the monetary weather by giving it "air-conditioned" capital. Let us be all proud of our child. Let it be the healthiest, mightiest and most dynamic.

The old term is drawing to a close and with it 1938 is reaching its end, 1939 with its heavy demands of textbooks, stationery, meals amenities, fine chairs and so forth is staring in front of you. Shall the millennium be yours. It is yours for the asking. Make it a point, nay your duty, to hold a minimum of five shares in the club.

Murder not your child!

R. ANANTHANARAYANAN, B.A.

The Park Hostel.

By "VOX POPULI."

After waiting and agitating for more than hundred years the Government have relented and have given permission to Mr. Michael Thambuswamy to build a hostel for us. Hopes ran high and expectations were worked to a fever-pitch but we are very sorry to state that all our hopes are shattered and our minds staggered at the row of rooms that are built for us under the guise of a hostel. The building is nearing completion and a glance will make patent to the most conservative that it looks like a dormitory, rather than a hostel built in the year of Grace, 1938.

The hostel as at present constructed consists of three floors with rooms in a line separated by a central corridor. For such a big hostel designed to accommodate two hundred and odd students one would have expected the block system of Loyola College or the Quadrangle and Hall system of Christian College. But we find that the soul consideration seems to have been the barest minimum of space built in a puritanic spirit. The hostel consists of but about twenty single rooms! And the rest double rooms.

Even in these rooms the size of the smallest in Madras being as follows:—

Ground Floor.

	Double Room.	Single Room.
Height	10½'	10½'
Breadth	10'	6½'
Length	14½'	10'

Upper Floors.

	Double Room.
Height	10½'
Breadth	10½'
Length	15'

Comparing it with the other hostels is defective in the following respects:—

(1) The square area of the room is the smallest.

(2) The rooms at the Purasawalkam road-end depend for their breeze on the mercy, kindness and consideration of the rooms towards the Ormes road.

To depend for the air one breathes and enjoys on one's neighbour is a thing galling beyond expression and most unfortunate.

(3) One has only the ill-lit and ill-ventilated central corridor to fall back upon, in emergencies, as when guests arrive, or very sultry weather supervenes or for an airing without getting to the grounds.

(4) The rooms are so small that two cots cannot be put into the room with two chairs and tables without considerable or complete restriction of moving space.

(5) A verandah for each row of rooms—an amenity, a fundamental and essential one,—which every hostel in the city has, is denied us. To sit in one's stairs in front of one's room when tired after a day's work is a thing which a human being with an iota of humanity in him will not deny even to the worst criminal, least of all to a medical student, who is the victim of a malignant time-table which lingers and drags from morning seven to evening five. We come back, tired, all energies dissipated, depressed, and to be forced to get into these cells is a thing which will drive even

the most stoic of beings to despair, if not to madness.

The growing tragedy of the whole show dominates one's mind, when one thinks that such is the hostel allotted to medical men, men who preach so much of ventilation, cubic space, overcrowding, etc. We feel it most insulting that, our hostel, instead of being the paragon of hostels, a model for others to copy and emulate both as regards architecture and spacing should be like the Penitentiary a row of strongly-built-rooms and nothing but that.

We do not want to be destructive critics. We are but voicing forth the barest need in the most constitutional

manner so that we will in a band without coercion and forcing, occupy the building ungrudgingly. It is too late to change the structure completely but small mercies can be done and that too easily without much cost in a way beautifying the structure which is now ugly and providing more space. *A five foot verandah must be added all-round so that what is lacking inside the walls can be made up by a splendid balcony.*

We feel and believe that our Professors are our local parents and that their duty does not stop with teaching us but also in seeing that we live well and comfortably as well.

Is this the voice in the wilderness

Annual Report of the U. T. C. for the Year 1937-38.

By Under-Officer K. C. Ganapathy.

We started off the year with a very few vacancies which were rapidly filled up. Altogether 24 were enrolled and we had people in the waiting list even till the day of the camp.

The company parades were conducted as usual twice a week for recruits and once a week for trained men and battalion parades once a month at the Island grounds. The average attendance at these parades was very much satisfactory showing 90 per cent of attendance which is a record up to now.

Ninth of December, the first day of the camp held at Pallavaram, saw us in full of spirits in spite of the heavy rains. Though it is no fun to live under a drenched canvas and sleep over flooded grounds our men were in no way depressed as they had their usual funs and inspiring songs to keep them going cheerfully.

The total strength at camp was 59 out of 77, 18 being exempted on account of various examinations. We had a good all-round training and this year it was particularly interesting as we had the unique opportunity of undergoing anti-gas training and the musical P. T. which went a long way towards enlivening our spirits. Word must be said about the concerts which were one of the few organised amusements we had in our camp. Men of the contingent were again in the forefront. U. O. Rajagopalan's mimicry

and Cpl. Koshy's original songs were very much appreciated.

The second week of our camp was rather a busy one on account of the competitions and sports. For this purpose we were grouped with the other contingent of our company vs. Engineers. There was perfect harmony between us and our men were very keen, enthusiastic and smart. Our men enjoyed the camp very much and the *esprit de corps* was genuinely in evidence.

We stood second in the total number of points for the Willington Shield which is awarded for all-round efficiency. We have won the following cups and trophies:—

(1) Route March. (2) Tug-O'-War. (3) Attendance. (4) Drill (5) Cross country. (6) Interior Economy. (7) Hockey, and in addition we were runners up in foot ball.

I am glad to announce that two of our men Cdt. Subramanian and Cdt. Ramachandran got individual cups for scoring the highest number of points in Parts II and V respectively in the annual musketry course.

I will be failing in my duty if I do not mention a word about our Officer Lt. Chandrasekharan. He was also the Medical Officer of the Battalion and he used to find time to mingle with us, and encourage us all the time, amidst his multifarious duties. His

occasional punches, swearings with a smiling face and the keen interest evinced in our welfare made him so popular amongst us.

We are glad to welcome back our popular contingent commander. Lt. K. S. Visvanathan who has returned

from abroad after finishing his course in flying colours.

Last but not least we thank the Principal and the members of the staff for the encouragements they have given us throughout the year.

In Lighter Vein.

The wounded Tommy limped up to the M. O. "And what's wrong with you?" asked the M. O.

"I was on ration fatigue," replied the Tommy, "and a sniper hit the rum jar."

"Well, if the sniper hit the rum jar, what hit you?"

"'Arf the bloomin' battalion!" replied the wounded one with feeling.

Helping Hand.

A School-Teacher, after examination of the pupils in her class by the school nurse, wrote the following note to the parents of a certain little boy:—

"Your boy Charles shows signs of astigmatism. Will you please investigate and take steps to correct it?"

"The next morning she received a reply from the boy's father who wrote:—

"I don't exactly understand what Charlie has done, but I have walloped him to-night and you can wallop him to-morrow. That ought to help."

"One of the safest methods of slimming is to perspire regularly," says a doctor. It's the constant drip that wears away the stone.

"If you have a touch of indigestion what is better than a diet of charcoal biscuits and warm water?" asks a writer. A touch of indigestion—definitely.

It is the considered opinion of a doctor that one of the finest things for young people is getting up with the lark. The trouble is that so many of them keep the lark up all night.

The mental specialist was showing a party of friends through his institution. To one patient he said:

"John, why do you continually insist on scratching yourself?"

"Because," replied the patient, "I'm the only person in the whole wide world who knows there I'm itching."

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Grand Medical College Magazine, Grand Medical College, Bombay.
The Journal of the Indian Medical Association, Calcutta.
The Sind Medical Union, Karachi.
Indian Journal of Venereal, Bombay 4.
Medical Digest, Bombay 4.
Malayan Medical Journal, Singapore.
The Burma Medical Times, Rangoon.
The Indian Medical Journal, Madras.
Medico Surgical Suggestions, Madras.
Journal of the Andhra Medical Association.
The "Antiseptic," George Town, Madras.
King George's Medical College Clinical Society, Lucknow.
Journal of the Indian World.
The National Medical College Magazine, Bombay.
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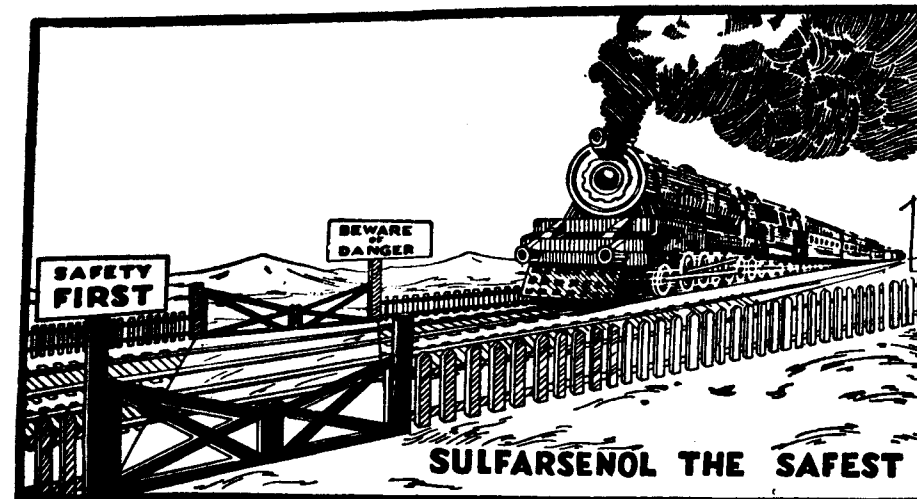
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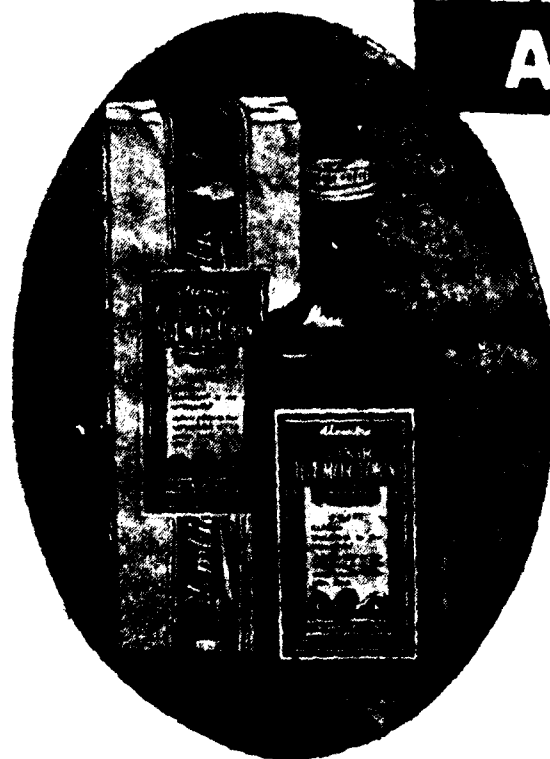
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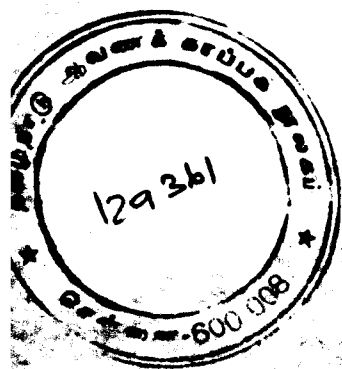
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