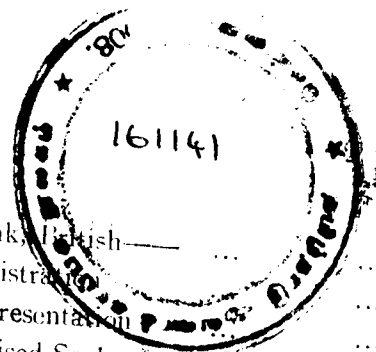


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THE LATE DR. P. S. RAMACHANDRIER.
 Founder and the First General Secretary of the All-India Sub-Asst. Surgeons' Association.

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EPIDEMIC OF INFLUENZA. 1918 *

BY

J. C. BHATT L. M. & S., *Bombay*

AND

K. M. HIRANANDANI, L. C. P. S., *Bombay.*

IT was with painful surprise that this specific fever entered India, via Bombay, from over seas, in its full epidemic form about the middle of the month of June of the year 1918. It struck down the people of Bombay from one end to the other in a few days with a marvellous rapidity. The attacks were rapid and simultaneous. The chief symptoms complained of in the beginning by the lay people were severe pains in all the limbs and back, fever and cough which lasted for about two to three days. Different names and causes were attributed to this fever. Higher medical heads chose to call it simply a new epidemic until its true nature was discovered. Others stamped it as influenza and were busy working in laboratories for finding out the influenza bacilli. The Ayurvedic Vaidis of Bombay speedily ran to attribute the fever to some pathological change in the water-store of Bombay, while some of the illiterate people conceived that it was a fatal fever sent out to India by the Germans.

By the time this fever was raging in Bombay it was expected that the fever would spread to other parts of India also;

* Read at the last Conference at Calcutta.

and this expectation did not take long to be realized. Here in Hyderabad, Sind, the epidemic took its firm and alarming grip by the first week of October 1918, reaching its highest pitch by the end of that month, and disappeared almost by the middle of November 1918. A great majority of people were attacked simultaneously as if an aerial wave of infection had swept over the whole city, medical aid proving far too short to combat with such an extensive fire of Influenza.

It is in view of the fact that this disease is fond of re-visiting its old centres, at intervals of time, entirely and invariably chosen by itself and also in view of its precipitate outbreaks with a number of clinical manifestations which almost border upon so many other independent diseases—thus rendering its early diagnosis and timely control difficult—that we are tempted to take the liberty to pen in brief what little we have observed in our practice with regard to this mysterious malady.

Incubation Period.—From a few hours to four days.

Initial Symptoms.—Sense of exhaustion and fatigue: general aching of the whole body—specially back; soreness of throat, disturbed sleep, and sense of feverishness.

(1) *Uncomplicated Febrile type.*—Temperature varying from 102 to 104°F, Coryza, frontal headache, pain in back of eyes—specially on pressure; severe pains in the back and limbs. Tongue coated, congestion of throat, even of larynx; in the latter case with hoarseness of voice, restlessness and sleeplessness. On the 3rd or 4th day, the patient feels quite relieved so far as the pains and fever are concerned, but the sense of prostration is still there, which gradually wears off.

(2) *Respiratory type.*—Temperature varying from 102 to 106°F. By the third day signs of severe bronchitis all over the lungs develop, followed soon in a majority of cases by development of pneumonia specially of a double broncho-pneumonia type. The early detection of this type of Pneumonia was always clouded with difficulties, as the lungs showed mixed types of physical signs. The patient became delirious,

pulse, very fast and feeble, breath foul, sputum blood-tinged, and in some cases there was hæmoptysis. Epistaxis was comparatively less. Cough dry and tenacious at first, later on becoming loose and mucopurulent. In worst cases, cyanosis of the nails and face.

(3) *Gastro-Intestinal type.*—Temperature varies from 101 to 104 or even 105°F for about a week or ten days. The evening temperature goes up higher than the temperature in the morning. It does not come to normal, and gives one an impression of Remittent fever or Typhoid fever. The pulse too, in such cases, instead of being increased as in the first two types, conspicuously keeps pace with the temperature. They very nearly correspond with high temperature the patient is drowsy, although, when talked to, he answers questions intelligently. Some cases showed even gurgling in the right flank. The enlargement of the spleen was not to be found in any case. Few cases complained of severe abdominal pain with irritability of stomach and vomiting. Prostration is very much marked. There is sinking of voice and the patient has to be helped while turning sides. Tongue is thickly coated. Constipation is well marked during the first week. Later on loose, slimy, yellow coloured motions are noticed. In one case the patient passed blood in his stools.

Eruptions—minute and rose coloured were noticed in two cases only. In one case the eruptions were only on the abdomen and their number was barely a dozen and in the other case, they were noticed on the fore-head and back of hands only. But these eruptions did not manifest themselves in fresh crops daily, as in Typhoid. This type has always begun with the usual catarrh of the nose and throat. Involvement of lungs is very little, few cases showing moist crepitations on deep breathing in one or the other base.

(4) *Nervous type.*—Cases of typical nervous forms have not been seen by the writers.

Oetiology.—All ages and sexes were attacked, specially the adults, and the aged and old. No class enjoyed immunity.

Management during an epidemic.—The first and foremost thing during an epidemic would be to organise such efforts as would stop the spread of the disease as much as possible.

It has been proved bacteriologically that the infection starts in the air-passages and that the nasal secretions as well as expectorations from lungs are highly infective, inasmuch as they contain the specific germs not only during the height of infection but even during convalescence; our battle has evidently to be fought with a double-edged sword:—Firstly we must take special pains to see that all the secretions and excretions of infected persons are carefully burnt or destroyed with antiseptics. Secondly we should aim at the same time to maintain the hygiene of the buccal and nasopharyngeal cavities of people. This latter we can do by the following means:—

Personal.—Gargling the mouth with:—Solution of Thymol, or Potas Permanganas, Potas Chloras or Carbolic acid 1 in 120

Eucalyptus oil to be carried on handkerchiefs for inhalations. Persons fond of creosote may as well inhale that in lieu of Eucalyptus oil. Ung-Hydrag-Iodidum-Rubrum 1 in 60 to be besmeared along the alae of nostrils. Prophylactic Quinine dose grs. v to x daily or every 2nd day, or Tinct quinine ammon $\frac{1}{2}$ dram dose. Light and nourishing diet, taking care to avoid as much as possible heavy meals. To see that the bowels are acting properly: clothing should be warm and exposure to chill strictly guarded against. Regular exercise short of fatigue; open-air walking is better. People should burn Benzoin or "Guggal" in their houses every evening. *Spitoons containing antiseptics should be provided as far as possible.*

General.—Disallowing of such things which would bring on crowding of people viz. Cinemas, Theatricals, Caste-dinners, Public meetings, Restaurants; overcrowding in Railways, specially during an epidemic season, is an unpardonable sin. This is especially so in Indian Railways where overcrowding is very frequent. This must be deliberately disallowed, if not

by the Railway authorities, certainly by the medical officers of the Railways concerned. Military troops to be out of bounds. *Open air* meetings may be allowed only in times of urgent necessity. Persons coming from infected areas must be put under Quarantine for about a week. This system may go a great way indeed in stopping the spread of the infection, but may prove to be tedious and rather difficult. Attendants on the sick should wear a kind of mask, covering the nostrils and mouth only and containing some antiseptic; clothings of infected patients must be either destroyed or thoroughly disinfected. The floor must be washed out with phenyle every day and plenty of sunshine allowed to come in.

Prophylactic inoculations.—Prophylactic inoculations should be tried in this country as they are in Europe. If their efficacy is established beyond doubt they will no doubt be of immense value in warding off the disease, and be the best and convenient prophylactic.

Conclusion and hope.—Now that the profession has gained some experience, though not without heavy sacrifice, we wish and hope that the next epidemic of Influenza, if at all it comes and whenever it comes, shall not be allowed to play the same amount of havoc which it has wrought this time; that the professional authorities in harmony with non-professional official heads and the educated public at large, would, in the very nick of time, ably and efficiently mobilize, and carry out a vigorous offensive against the enemy by such genuine means as would certainly tend to nip the disease in its very bud. And we believe, if perchance, with such a high goal in view, the disease escapes being nipped in its very bud, it will not fail at least, we are hopeful, to paralyse the disease to a very serious extent.

injection is useless. Tuberculin acts specially not upon the tubercle-bacillus, but upon the tuberculous tissue, causing its death and disintegration, when it is either absorbed or discharged from the body. Under its influence, the 'antibodies' (opsonins etc.) are undoubtedly stimulated. Pathologically it is seen that in a tubercular area two processes go on: one "Sclerosis and encapsulation," the other "caseation and softening." The former is conservative and healing, while the latter is destructive and dangerous. The application of Tuberculin is rational only in early pulmonary tuberculosis, where the focus of infection is cut off from the blood stream. Tuberculin is no cure for Tuberculosis but is an ideal means of diagnosing the disease, when the body harbours even a very slight tuberculous lesion. The benefit derived from it is brought about by an active response of the body cells during incipient stage of tuberculosis, but individuals, already overwhelmed by the disease, and healthy subjects, will not produce such response. It has been described as a double-edged sword, which, in an unskilled hand, can, in all probability, cause more harm than good. But after all the success attained by the aforesaid remedies, as compared with the complexity of their methods of administration, is so slight that it calls for some simpler and more successful forms of treatment whereby this 'White Plague' can be combated.

The treatment I intend to mention to-day is "Nascent-Iodine," which has been tried recently in the Lady Chelmsford War Hospital, Benares, upon a number of cases with encouraging results. The technique is very simple and is described below :—

Mixture No. 1	Pot, Iod.....gr. V.	once daily
	Aqua ad.....oz. i.	at 6 a. m.
Mixture No. 2	Pot, chl.....gr. 2½	twice daily,
	Acid. Hydrochl.....ms. 5	at 9. a. m. &
	Aqua ad.....oz. i.	at 3. p. m.

The very first thing is to take the dose of Iodide in the morning at 6 a. m., to be followed by Aqua Chlorig, first dose 3

hours after the Iodide, and the second dose, 6 hours after the first dose of chlorine water.

Under its use, two reactions take place, *viz.*, (i) local, as indicated by increased pain and dyspnoea, and increased expectoration, (2) general, as indicated by rise of temperature and an increased feeling of malaise. The secret lies in carefully watching the reactions and gradually increasing the dose of Iodide. The dose of Aqua Chlorig remains the same. The latter acts as a vehicle and probably interacts upon the Iodide, when Nascent Iodine is set free for its diffusion into the tissues. None of the cases was seen to develop any sign of Iodism even when the treatment was continued long. The weight and temperature charts acted as guides to the dosage. Cases gaining weight and ceasing to get temperatures were given an increased dose of Iodide gradually.

It is better to increase the dose of Potassium Iodide by not more than a grain every time it is thought necessary to increase it. A tolerance is acquired, and by this way as much as 10 or 15 grains can be pushed a day without any untoward effect. Cases showing a persistent rise of temperature and decreasing in weight are either kept on the same dose or in some cases the dose has to be decreased.

Like "Tuberculin" Nascent Iodine will also cause harm, if the dose is not properly regulated: for example, when the reaction is very high and the temperature is maintained Potassium Iodide in big doses brings forth tissue disintegration so rapidly that the weight readily falls, the clinical symptoms become aggravated and the patient gets worse.

At first, as a routine measure, Potassium Iodide was administered in 10 grains doses daily, but the reactions following were so very great that the initial dose was cut down to only 5 grains per diem. In one case only 2½ grains of Potassium Iodide were given to start with and the dose raised to 3½ grains. The cause of fever in this case was not certain, and the patient came under my treatment on the 25rd day of the

disease. It was a private case, a female, of very delicate constitution, with complaints of indigestion. No reaction followed the first dose but the second dose was followed by a rise of temperature.

Those extremely debilitated, with run down constitution, are given 3 grains daily doses, and this is increased very gradually. If, in the course of the treatment, the patient shows a persistent rise of temperature, a period of rest is essential, and it is a wise plan to administer ordinary fever mixtures (diaphoretics) for a few days till the temperature falls down to normal. The Nascent Iodine, then, in its previous dose, can again be pushed without danger. Some of the patients, however, show slight or no reaction after the administration of Nascent Iodine but the weight chart in these cases acts as a good guide. Tuberculosis, in its early stages, is well combated by this treatment, but in acute miliary tuberculosis its action is uncertain. Good results have also been obtained in the chronic forms. The diagnosis of the 'Tubercle' cases, treated by this means, in the Hospital were always made by diagnostic injections of Tuberculin, and confirmed by examining the sputum and detecting tubercle-bacilli therein. It is noteworthy that most of the cases so diagnosed showed in their sputum not only tubercle bacilli but also plenty of other saprophytic organisms *e.g.* strepto, staphylo and gram-negative diplococci with pus cells and elastic tissue fibres in abundance. "Tuberculin" is seen to produce feeble effects in those cases where secondary infections have already taken place, but Nascent Iodine has been seen to produce good results, both in simple and multiple infections.

Every rise of temperature in cases of tubercle of lung may not be due to the disease itself or to the action of Nascent Iodine, and the possibility of Malarial or other infections must not be lost sight of. In fact we detected malarial parasites in the blood of many tuberculous patients and invariably checked the temperatures by suitable doses of Quinine. Experiencing the beneficial results obtained from Nascent Iodine at the

Hospital, I treated a few outside patients on the same line, although the cause of their disease was more or less obscure. These patients were all chronic sufferers of fever, coming up every evening. The nutrition was poor, appetite bad, bowels loose or constipated and malaise and weakness very great. Examination of lung, heart, liver and spleen revealed hardly any abnormality, and different medicines, (empirically) were given without any effect. Nascent Iodine, after 3 to 4 days' administration, succeeded in lowering the temperature and a continuance of it for 8 to 10 days more restored the normal temperature. Two such patients showed palpable spleen, 2 fingers' breadth below the costal arch, and I added 2 grains of Quinine Hydrochloride in each dose of Aqua Chlori with marked success.

One very striking property of Nascent Iodine lies in its power of correcting the bowels. Diarrhoea, a frequent accompaniment of Tuberculosis in its later stages, is readily checked by its influence, probably this is aided by the chlorine water.

For the children, the doses were divided according to their respective ages, and they bore the treatment well. I ordered 5 doses of Pot. Iod. mixture, and 8 doses of Aqua Chlori for 4 days, and repeated this as often as was considered necessary. The exact way in which the medicine acts is not yet known to me, but it is hoped that a trial by others will soon throw more light upon the subject.

I am greatly indebted to my O. C. Col. J. M. Crawford, B. B. E. I. M. S., for his kindly giving me the technique of this method of treatment and permitting me to use the Hospital charts in support of my paper.

LECTURE BY LT. COL. NEWMAN C.I.E., M.D., I.M.S., ON "RABIES."

INTRODUCTORY.

MY reasons for choosing the subject of rabies to-day are first that I have recently been able to refresh and classify my ideas at first hand at Kasauli and second, that it is a question on which the practitioners are not infrequently consulted, and when so consulted the questions for decision are of an unusually urgent nature. It is well therefore for medical practitioners to have certain basic facts and principles to base their answers on to the multifarious questions which are sure to be put to them on such occasions.

It is usual in discussing any disease to work up through its etiology, pathology and symptomatology to treatment but I propose to reverse this process, and to describe the Pasteur anti-rabic treatment first, because this is outside the domain of the general practitioner, while symptomatology concerns him far more closely.

ETIOLOGY & PATHOLOGY.

Rabies or hydrophobia is as is well known to you an acute infectious disease of the canine species, dog, jackal etc., transmitted by direct infection by the bite or the lick of an infected animal. It is characterized by a peculiarly long incubation period, and is probably kept alive by transmission direct from one animal to another *i.e.*, it is incapable of a non-parasitic existence. Though particularly a disease of the canine species all mammals are susceptible to it, such as cats, monkeys, cattle, horses and of course man. The term hydrophobia which means fear of water is misleading as we shall see later, and would be much better dropped for the nomenclature of rabies. The causative agent or organism has never been demonstrated, but experts are generally agreed that it is due to an ultramicroscopic protozoon. It is so minute at all events that it

Read at the last Conference of the All-India S. A. Ss. Association.

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passes through the finest porcelain filter un-arrested. The "virus" whatever may be its ultimate nature causes symptoms and kills through its effect on the central nervous system (brain and spinal cord) which are affected throughout. It is assumed that it travels up to the brain by the nerves, at all events by the lymphatic channels in the nerve sheath. You will observe its similarity in onset and action to the tetanus which also travels by the nerve sheath, lymphatics and falls upon the nervous system. The virus exists in abundance also in the salivary glands and their excretion the saliva, and in minute quantities in other glands and organs, but not in the blood. It is killed by antiseptics, heat and dryage.

These latter facts are of importance in treatment. Pasteur in his researches many years ago found that gradual dryage reduced the virulence, toxicity, infectiveness or pathogenicity of infected rabbits' spinal cords until the virus contained in them became inert or died. Under the conditions in which he dried the cord more than 14 days was necessary to kill the virus. His treatment which is still practised at the Pasteur Institute in Paris consists in injecting subcutaneously a small portion of the spinal cord of a rabbit which has died of rabies in the form of an emulsion in bouillon. The first injection given is of a cord dried for 14 days, the 2nd for 13 days, and so on until the 14th and last day of the treatment, an emulsion of fresh untreated cord is administered. There are certain objections to this treatment. The local reaction is considerable, and painful. In a very small percentage of cases symptoms of paresis passing on even to complete paralysis "accidents paralytiques" have been observed. These are obviously pretty definite drawbacks.

Since 1912 or thereabouts, another system has been in vogue at Kasauli first introduced by a Sardinian called Pheni. Briefly it is an emulsion of the brain of rabbit dead of rabies the virus contained in it being killed by admixture with 2 per cent Carbolic acid. The treatment consists in subcutaneous injection given daily for 14 days of 1 Gram of brain (killed

virus) in 4 cc. of Carbolized ($\frac{1}{2}$ per cent) normal saline; given in 2 doses of 2 cc. each. The injections are made under the skin of the abdomen in the umbilical region, on either side. Children given the same dose. Patients bitten on the face get a double dose - 2 grms killed virus or rabbi's brain. For the painlessness and simplicity of the treatment I can vouch personally. Beyond the prick I suffered no inconvenience whatever, and this is the experience of the great majority of patients. A little itching is sometimes complained of about the 10th day and sometimes an urticarial rash may develop which is easily controlled by calcium chloride in 10 grs. doses thrice a day. Apart from the absence of discomfort, you will perceive how very much simpler of application Phen's method is than the original treatment. The brain of a rabbit weighs from 350 to 400 grammes, and therefore 1 rabbit suffices for this number of patients daily. During treatment and for 10 days afterwards: avoidance of chills, over exertion, and the use of alcohol in particular, is enjoined.

Now, stories of the conveyance of rabies as the result of treatment are not unknown amongst the laity, and your patients may ask you if there is any danger of this in the treatment. From what I have just related you may reply with a most emphatic "No."

In the first place the emulsion now administered consists of killed virus. It is practically analogous to the administration of a killed bacterial vaccine, staphylococcal, typhoid, cholera or other. In the second place 7 times the full quantity administered to a patient in 14 days has been injected into a rabbit in one dose without ill effects. Thirdly, it is a "fixed" or attenuated virus and even in a living condition is non-pathogenic.

This brings me to the distinction between "fixed" and "street" viruses. It may not possess any very practical interest for the general practitioner, but you will read of them and the expression may puzzle you as it did me at first. Now

street virus or the virus "of the roads" French "de les rues" means the ordinary virus contained in the brain of a rabid dog or other animal. It is of a hardy strain, and may aptly be compared to a forest plant or tree which grows under natural and not too favourable condition. "Fixed" virus means the virus produced in the brain of a rabbit guineapig or other animal as a result of direct injection into or under the meninges. It is a delicate strain produced under artificially favourable conditions and it may therefore be aptly compared to a hothouse or artificially cultivated plant.

Street virus is pathogenic when inoculated into the tissues. Its incubation period is prolonged. It has a higher affinity for nervous tissues and in the rabbit a fixed incubation period of 7 days followed by death in 3 days. Fixed virus is practically non-pathogenic when injected into the tissues. The best proof of this is that no laboratory worker has ever been infected by it.

The mode of protection is uncertain. Pasteur held that the prophylactic vaccination prepared the central nervous system in some way against the assault of the active virus. The analogy of vaccinal immunisation (now a common place of medical practice) may seem to suggest that a specific immunising mechanism is stimulated into activity. Against this is to be set the fact, an anti-serum of high potentiality is very difficult to obtain, from goats or horses for instance, and only this after a long period and the exhibition of doses. The point is of academic interest, since it has been produced up to the hilt by Pasteur and his many disciples that immunity against an already ruined infection can be conferred in almost all but a small percentage of cases, depending on factors which though perhaps still imperfectly understood, are established to some extent at all events by experience. Before proceeding to discuss these, I should like to bring out the close analogy between Jennerian vaccination for small pox and the Pasteur's anti-rabic inoculation. The virus of variola by passage through the calf is modified and altered into the group disease

vaccinia or cow pox, which protects against Variola or small pox. The virus of "street" rabies is modified and attenuated by passage through the rabbit into a weakened or etiolated virus which, administered in sufficient doses, protects against an already received inoculation of street virus.

I come next to the results of the anti-rabic treatment. It must be borne in mind that in pre-Pasteurian days a large number of persons bitten by unquestionably rabies dogs developed the disease. The percentage of escapes is variously estimated from 33 to 66%. Some fortunate persons are unquestionably immune, and in all there is a natural process of resistance and protection, which the treatment calls into active bearing.

Out of 36,095 persons treated at Kasauli there were 239 failures or 0.66 per cent, and 517 deaths or 1.43 per cent of the number. The difference *viz.* 278 deaths occurred during treatment, or in other words the patients arrived too late to be of any avail. Other facts stand out prominently from an examination of other figures, the numbers are not large enough to preclude any possibility of error, which is nonexistent in the case of the total figures, but still the conclusions are definite.

(a) the mortality increases with the number of bites.

(b) the depth of the bites is an important factor in mortality, 4.8 in those deeply bitten to 1 in those superficially bitten.

(c) interposition of clothing again lessens mortality markedly. In the ratio 6.6 for those bitten on the bare skin to 1 for those bitten through clothing

(d) Local cauterization again reduces the mortality by 4 to 3 or by 25%.

The Kasauli authorities look forward to an improvement in the results when this is fully recognised. I may digress for a moment to say that the best caustic crystallized or liquified

or carbolic acid should be applied deliberately to the depth of the wounds.

(e) The position of the bite has a very important bearing on mortality. In general the further the bite from the C. N. system the longer the period of incubation and the less the mortality.

Thus leg 0.69 mortality taking this as the unit 1
 Arm 1.15 do twice
 Face 7.6 do 11 times.

(f) Lastly the Kasauli authorities lay great stress on the advisability of treatment at the earliest opportunity. The figures on which this is based are too complicated to give here but are entirely conclusive. The concept of inoculation and subsequent injection, is according to Major. McKinorick the present Director at Kasauli, a race between the infection and treatment by preventive immunisation. If the patient delay to put in an appearance till late, the treatment is seriously handicapped in favour of the disease. If he appears early treatment starts on more favourable terms, and the chances of successful prevention are very much better. This applies *pari passu* to bites on the face, and deep or extensive bites.

These factors may be summarized thus. The bigger the dose, the nearer the brain, and the later the treatment begins, the less the chance of successful result, and the higher the mortality.

The incubation period as I have said varies greatly, but may be taken to be from 5 weeks to 8 weeks in the dog on the average, though it may be as short as 16 days and as long as 3 months. The average incubation period in 280 fatal cases in human beings was practically 7 weeks.

Is a dog in an infective condition before he shows actual symptoms of illness? The answer is "Yes, perhaps up to 2½ days beforehand." In one reported case only, infectivity existed 6 days beforehand. The duration in illness is usually 2 or 3

days, hardly ever more than 4 days. The lesson to be drawn from this is, that if a dog bites any one, and lives for 10 days afterwards, there is no fear whatever that the bite was infective.

We come next to the question of diagnosis. The Kasauli authorities lay stress on the paramount importance of history and symptoms. The idea that the brain can be tested by inoculating a rabbit is correct in point of fact but fallacious in practice, because it takes 17 days for the rabbit to die after inoculation and thus three previous weeks may be lost. This method of diagnosis has been given up as practically useless. The examination of the brain for Negris' bodies is practised instead. These bodies are about the size of a blood corpuscle and are found in the big pyramidal cells of the brain in an animal dead of rabies. The hippo-campus major or portion of the brain corresponding with the dentate fissure and forming the floor and projecting into the lateral ventricle is particularly rich in these cells and this portion is only examined for Negris' bodies. These are demonstrated by a double stain, the bodies taking up the red stain, and the tissues the blue. But this test is only valuable if positive. If no Negris' bodies are found the possibility of rabies is not negatived. These considerations show that symptoms are more important than anything.

I now come to the important question as to the advice the medical practitioners should give to patients suffering from the bite of a dog suspected of rabies. The opinion will depend on the dog's history. It falls under three heads:—

(1) The dog is dead. If certified to have died of rabies by a competent authority, the advice will be "proceed for treatment at once." If suspected to have died of rabies enquire into history, previous bites, illness etc." If any suspicion exists, again "proceed for treatment at once."

(2) The dog is unknown, but the circumstances *i. e.* an unprovoked bite suggest that it was suffering from rabies; the only safe rule is again "proceed for treatment."

(3) The dog is alive and can be watched. Under no circumstances should it be destroyed, but tied up with a steel

chain out of mischief and kept under observation. If it dies or obviously going to die with symptoms of rabies, the patient should again "proceed at once for treatment."

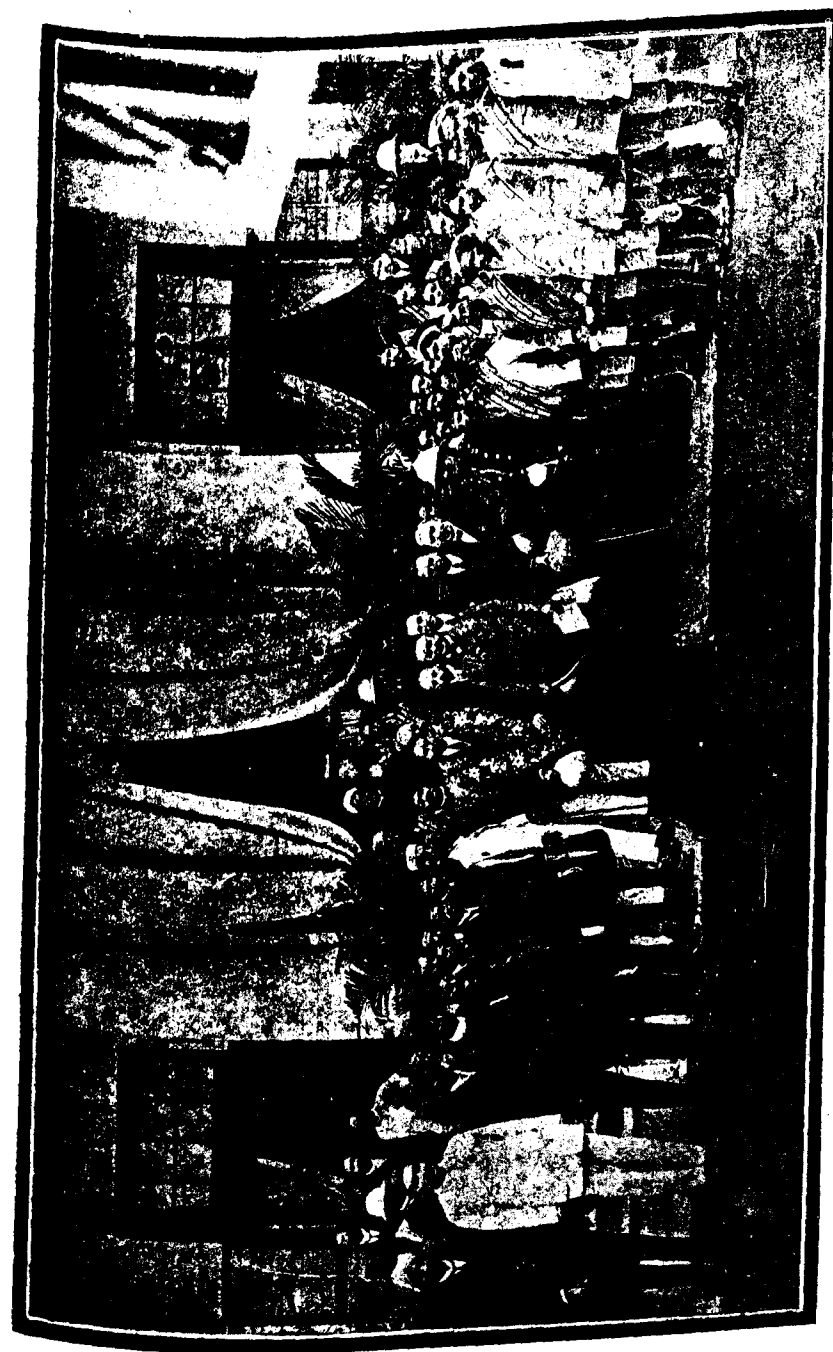
A history of a lick on a cut or wound less than 24 hours old should be dealt with in the same way. A granulating sore offers sufficient protection. A history of saliva on the fingers, and subsequent scratching is almost certainly innocuous. The virus is killed instantly by drying. A very nervous patient may be advised to go, though the risk of infection appears to be infinitesimal, and if he can afford it and is desirous of doing so. In all cases send a written history of the circumstances and particularly of the dog's condition.

I have now touched on all the chief points and come to symptoms. In the first place there is no significance in the distinction between acute rabies and dumb rabies. The symptoms may pass from one to the other in the same animal. Personally I think it is a question of temperament. A domestic or pet dog and a rabbit will never attempt to bite or show aggressiveness from the beginning to the end of the illness. In a pet dog unusual demonstrativeness or affection may be the earliest noted symptom. I have observed this in two of my own dogs. Next an observant owner will notice his dog is out of sorts. It may seek seclusion or be unusually restless; take food but not with usual zest. The symptoms rapidly increase. The animal is distraught at times. Jumpy, nervous and preoccupied. Forehead wrinkled and on the alert for sounds. It obviously suffers from hallucination of sight and hearing, and only when spoken to loudly or sharply, recollects itself and wags its tail. Its jaw and tail droop and its whole attitude is extremely characteristic. If the disease take an acute or rabid form, it attacks strange dogs or persons, sometimes with extraordinary suddenness or violence, and the characteristic hoarse or brassy bark develops. Or it may wander off in an aimless way snapping at persons or dogs or at inanimate objects. This is very characteristic of street dogs, semidomesticated dogs and jackals; indeed if a jackal attacks man, it may be taken for

granted that it is suffering from rabies. Later signs of paralysis and weakness supervene particularly of the pharyngeal musculature. The animal tries to swallow food or water, but fails to get any down, the saliva is freely secreted at the sight of food or drink and hangs in festoons from its jaws which are slightly open. Death follows on increasing paralysis possibly in general spasms, the animal lies on its side and can only raise its head. The symptoms of hydrophobia or fear of water is by no means constant in dogs, and its absence is valueless for the diagnostic point of view though greatly relied upon by the laity. It is much more probable that the play of light on water irritates and excites the visual faculty. The animal is obviously very thirsty and makes pitiable attempts to lap but cannot swallow. In human beings the attempt to drink often sets up general spasms, and is so distressing that the patient won't tolerate the offer of fluids. This is the most distressing symptom in man but is controllable by Atropin in $1/100$ grs. doses at 4 hourly intervals which enables food and liquid to be administered. I have never seen a case of human rabies, but the symptoms generally appear to be pyrexia, great mental depression, spasms of the Pharynx, Larynx, thirst, and air hunger, followed by increasing weakness, stupor and death from exhaustion. Excessive salivation is present as in animals in the later stages and supervenes in 5 or 6 days.

The prognosis hitherto is absolutely bad but the Kasauli authorities hope that treated cases may in future be nursed through the illness. Time can only show.

The Shillong laboratory are in need of street virus, or brains of animals and of rabies. The medulla will suffice. It should be sent in pure glycerine. Removal best effected by smashing vault of skull through unbroken skin with a hammer, then, after soaking brain in carbolic 1 in 20, through a longitudinal incision removing the bone with forceps and scissors and so extracting brain. Rubber or other thick gloves should be worn as a protection.



His Excellency Lord Ronaldshay, Governor of Bengal, opening the Sanitary, Scientific and Indigenous Drugs Exhibition, Calcutta, January 1919.

THE THIRTEENTH ANNUAL CONFERENCE.

This grand annual function of our Association was this time held at Calcutta on the 23rd, 24th and 25th January 1919, in the spacious central hall of the Campbell Medical School and the Sanitary and Scientific Exhibition, in the balcony of the hall. Under normal conditions the session ought to have been held about a month earlier, towards the close of December, but the prevalence of Influenza in a pandemic form in the country necessitated an adjournment, though only for about a month, within which time the dreadful epidemic practically cleared out of the country.

The hall was tastefully decorated for the occasion. With the flags, festoons and evergreens so methodically arranged, the richly coloured silk curtains and hangings at the doors and windows, the welcome arch at the main gate and the loyalty arch at the entrance to the hall, the whole premises presented a picturesque and gala appearance. Delegates from the various provinces, members and visitors began to arrive long before the appointed hour and as they arrived they were received by the members of the Reception Committee. Among the visitors were the following distinguished gentleman.

The Hon'ble Sir Henry Wheeler, Senior member of the Bengal Executive Council, The Hon'ble Sir Deva Prasad Sarbadikary, The Hon'ble Major-General W. H. B. Robinson, Surgeon-General with the Government of Bengal, Dr. C. A. Bentley, Sanitary Commissioner, Bengal, Lt. Col., Loventon, Superintendent, Campbell Medical School, Calcutta, Lt. Col. E. A. R. Newman, Superintendent, Dacca Medical School, Major Sandes, Surgeon to His Excellency the Governor, Major Sharples, Dy Superintendent, Campbell Medical School, Captain Hasket Smith, A. D. C. to His Excellency the Governor, Dr. Suresh Prasad Sarbadikary, C. I. E. Rai Bahadur Dr. Chuni Lal Bose, Chemical Examiner to the Government of Bengal, Rai Bahadur Dr. U. N. Brahmachari Drs. J. M. Mrigendra Lal Mitter, Tarak Chandra Sur, Benoy Lal Mazumdar, D. N. Maitra P. Nandi, J. N. Maitra, Narendra Nath Bose, Manmath Nath Bose.

Delegates, and Office-bearers: - Messrs. D. V. Venkappa, Offg. General Secretary, Madras, Rai Bahadur Surjo Prasad, Indore, Messrs. S. L. Sharma, Vice-President, Meerut, N. R. Karandikar, Editor Bombay, Nivasarkar Manager of the Family Fund, Indore, Roohiram Amesur, Karachi, Ramankrai K. Desai, Kathiawar, Ram

Narain Lall, Mussoorie, U. P., Mannu Lall Sharma, Muttra, Maung Kyowlone, Rangoon, Binky Lall, Fategarh, Kunj Babari Lall, Meerut, Dayanidhan Moradabad, Brij Ballab Maubur, Barceilly, Hiramandani, Hyderabad, (Sind) Khandekar, Indore, M. L. Kapadia, Baroda, Lekhdrajsingh, Aligarh, M. H. Mehta Marwar, Muraru Lall, Allahabad, Bimala Charan Sen Gupta, Benares, Mithu Lall, Cawnpore, Azizuddin, Agra, Satya Ranjan Das Gupta, Dacca, Boymkosh Das Gupta, Dacca, Maizuddin Khan, Dacca, V. G. Muthayya, Madras, C. N. Kanariwalla, Ahmedabad, J. H. Bhat, Ahmadabad, Satya Charan Maitra, Burdwan, Charu Chandra Panja, Burdwan, Bimala Charan Ghosh, Calcutta, K. D. Kulkarni Gwalior, W. K. Gudwala, Nagpur, S. K. Ganguli, Kurigram, (Bengal), Jameel Ram, B. Desai, Surat, Rai Sahab Bhagwan Sahay Singh, Dehradun, N. S. Narsimha Iyer, Bombay, D. R. Canak, Mysore.

Members and others:—

Messrs. Lalit Mohan Adhikary, Walsh Hospital, Serampore, D. C. Chakravarty, Krishnagar, K. Bose, Calcutta, H. C. Chatterjee, Chinsura, Suresh Chandra Ghosh, Jalpaiguri, G. S. K. Iyer, Calcutta, Hemendra Mohan Guha, Comilla, Abhoy Kumar Sarkar, Calcutta, Bankim Chandra Ganguly, Calcutta, Promatha Nath Ganguli, Pashupati Chattacharjee, Campbell Hospital, Calcutta, Hara Kumar Neogi, Calcutta, Birendra Nath Ghosh, E. B. Ry. Calcutta, J. N. Maitra, Campbell Hospital, Amrita Lal Bhattacharjee, Calcutta, B. C. Ghosh, Medical College Hospital, Calcutta; R. K. Shaw, Howrah; Hemchandra Das Gupta, Medical Officer, Jhenidah; Rajendra Kumar Ghosh, Midnapore; Netai Chandra De (Hooghly); Haripada Banerjee; D. Bagchi, Sitarampur, E. I. Ry.; Mukunda Lal Ghosh, Serajganj, Keshab Chandra Das Gupta, Calcutta, Rakhal Chandra Sinha, Calcutta, Sambu Nath De, Burdwan, Bidhu Bhusan Banerjee, Bongong (Jessore), Profulla Chandra Gupta, Bhawanipore, Calcutta, Jagabandhu Gupta, Bankura, Satis Chandra Gupta, Jalpaiguri, Murai Mohan Paul, Dacca, Heramba Chandra Chatterjee, Diamond Harbour, Rasick Lal Bose, Khulna, Abinash Chandra Ghosh, Budge-Budge, Mon Mohan Chakravarty, Police Hospital, Alipore, Nripati Bhusan Ray Chowdhury, Saidpur, E. B. Ry., Jogendra Chandra Sen, Suri Jail Hospital, Makhan Lal Saba Krishnagar, Jail Hospital, Basanta Kumar Mazumdar, Ranaghat, E. B. Ry., Rasmoy Bose, Calcutta. Hari Charan Chatterjee, Military Police Hospital, Chinsura, Surja Narayan Ghosh, Dacca, Amulya Chandra Mitra, Ahibushan Mukherjee, Burdwan, Surja Narayan Ghosh, Indian Station Hospital, Calcutta, Kedar Nath Chowdhury, Rangpur, Binoy Basanta Banerjee, Sheorapuli, (Hooghly). P. N. Mahalanabish, Dacca Jail Hospital, Behari Lal Das, Calcutta, Kumudini Kanta Chakravarty, Suresh Chandra Kundu, Naihati (24 Parganas) Kulaja Runjan Ray, Krishnagar, Abinash Chandra, Das Gupta, Lunatic Asylum, Berhampur, Bhupendranath Banerjee, Tarak Chandra Dutt, Byomkesh Das Gupta, Dacca Medical School, Bepin Behari Das, Military duty, Ranchi, Kartick Chandra Chakravarty, Calcutta, Jagadish Chandra Sen Gupta (Jessore), Raj Mohan Das, Bhagyakul Dispensary (Dacca) Nishi Kanta Datta (Dacca) Rajendra Kumar Brahmachari, Digbirpar (Dacca) Mon Mohan Chakravarty, Kanchrapara, E. B. Ry., Chandra Kumar Banerjee, Narendra Nath Sen Gupta, Campbell Medical School, Gosai Das Sarkar, Kurseong (Darjeeling) Nepal Chandra Bhattacharjee, Bogra, Nanda Lal, Sur & Sumukar Pal, Jaga,

Dal Jute Mills, Nandal Lal Pal, S rampore, Bimala Charan Das (Burdwan) Haripada Mandal, Calcutta, Narayan Chandra Dutt, Howrah, Damodar Chandra Chakravarty, Krishnagar, Rash Mohan Bose, Voluntary Venereal Hospital, Alipore Mohendra Kumar Bhattacharjee, General Hospital, Chittagong, Rehati Mohan Sen Mitra Dutt, Budge, Dinanath Jana, Rajendra Nath Kolay, Midnapore, Sarada Charan Mukherjee, E. I. Ry., Ajinganj, Taraknath Roy, Calcutta, Hem Chandra Bagchi, Myanmangh, Sarit Lal Bisak, Central Jail, Alipore, Hara Das Gupta Chatterjee, Presidency Jail, Calcutta, Ashutosh Paul (Rangpur), Atal Behari Campbell Hospital, Sidheswar Chakravarty, Shannagar Mills, (24 Parg.) Atal Behari De, Bibhati Bhusan Mukherjee, Kaliprasanna Sen, Raman Das Chakravarty, Tridev Nath Bhattacharjee, Dhananjoy Ray, Krishna Chandra Paramanick, Ramany Chatterjee, Campbell Hospital, Chintabaran Ghosh, Kumud Chandra Mitra, Sonampur, Jogeshwar Das, Burdwan, Bairav Ch. Kolay (Burdwan), Bazul Hussain, Judhishir Nath Jagatpati Ray, Rajeswar Sen, Alipore (Calcutta) Sachi Nath Ghosh, Buthnath Banerjee, Ashutosh Banerjee, Kiran Kumar Ghosh, U. N. Mandal, Nirood Chandra Bhattacharjee, Nirmal Chandra Dutt, Kanai Lal Bose, Nirmal Chandra Ghosh, Calcutta, Bisanta Kumar Bijerjee, Jangipur, (Murshedabad), P. C. Ray Chowdhury (24 Parganas), Bijoy Keshab Roy, Sital Chandra Dutt, Amarendra Nath Sen, (Hooghly) Jogesh Chandra Ganguli, Barisal, Taranath Chowdhury, Leper Asylum, Gobra and many others:—

Lady Doctors:— Miss Santi Proba Mullick (Dacca), Surabala Singh, Cornwallis St. Calcutta and E. Hunsedah (Berhampur).

About three hundred male and a few lady students of the Campbell Medical School and some staff nurses also attended the meeting.

The following were among the Press representatives present.

The Indian Daily News. The Statesman. The Englishman. The Bengalee. The Amritabazar Patrika.

Punctually at 10-30 A. M. His Excellency, accompanied by Major Sandes I. M. S., Surgeon to H. E., and Captain Hasket Smith, A. D. C., arrived, and was received by Major General W. H. B. Robinson, C. B., I. M. S., Surgeon General with the Government of Bengal, Col. Leventon F. R. C. S., I. M. S., President of the Exhibition Committee and the Members of the Conference Committee. The student Volunteers wearing their badges formed the Guard of Honour.

The following persons were then introduced by Lt. Col. Leventon, President of the Exhibition Committee to His Excellency, who shook hands with them all:—

(1) Lt. Col. E. A. R. Newman C. I. E., M. D., I. M. S., Superintendent Dacca Medical School and patron of the Bengal Branch Association.

(2) Mr. D. V. Venkappa, Offg. General Secretary of the Association.

- (3) Mr. Sathari Ganguly, Provincial Secretary, Bengal.
- (4) Mr. Bimala Charan Ghosh, General Secretary, Conference Committee, Bengal.
- (5) Mr. Judhisthir Nath, President of the Calcutta Branch Association.
- (6) Mr. Amulya Chandra Mitra, President of the Conference Committee, Bengal.
- (7) Mr. Jatindra Nath Maitra, Secretary of the Sanitary Scientific Exhibition Committee.
- (8) Mr. Kali Prosanna Sen, Secretary of the Indigenous Drugs Exhibition Committee.
- (9) Md. Maizuddin Khan, Secretary, Dacca, Branch Association.
- (10) Mr. Satya Ranjan Das Gupta, Joint Secretary, Dacca Branch Association.
- (11) Mr. Abhibushan Mukherjee, Secretary, Burdwan Branch Association.
- (12) Mr. Birendra Nath Ghosh, Treasurer, Conference Committee and Member of the Bengal Medical Council.
- (13) Mr. Pashupati Bhattacharjee, Secretary of the Student Volunteers Committee.

His Excellency was then garlanded by Mr. Amulya Chandra Mitra, President of the Conference Committee, Bengal, and a group photo was taken by Messrs. Johnston Hoffman & Co. This interesting preliminary function being over, His Excellency was conducted, amidst loud cheers, to the dais specially prepared for the occasion, along a pathway lined with beautiful flower pots and healthy palms. Just above the dais facing the audience was a beautiful coloured portrait of His Majesty, King, George V. Dr. Jatindra Nath Maitra, Secretary of the Sanitary and Scientific Exhibition Committee, then read the following address.

May it please Your Excellency,

WE, the members of the All-India Sub-Assistant Surgeons' Association, beg most respectfully to offer Your Excellency a hearty welcome on the occasion of the opening of the Sanitary, Scientific and Indigenous Drugs Exhibition which is being held under the auspices of the 13th Annual Conference of the All-India Sub-Assistant Surgeons' Association.

We meet here today under the most cheering circumstances. The titanic war which so cruelly convulsed the civilized world has happily come to an end. And while rejoicing over the triumph of the Allied Arms in the righteous cause of liberty and justice we offer our humble tribute of unfailing devotion and loyalty to our beloved King-Emperor. We also gratefully acknowledge the opportunity given to us to serve His Majesty and the country in the silent and yet noble and humanitarian work of alleviating the sufferings of the wounded and dying in the theatres of war.

Doubtless our efforts to kindle popular interest in Sanitation and Hygiene through the medium of the Exhibition are feeble and our resources small. Nevertheless Your Excellency's genuine interest in the well being of the people under Your Excellency's care as evidenced by Your solicitude for combating the Hookworm disease and Malaria, improving the lot of the unfortunate lepers and last but not the least, raising the status and pay of Sub-Assistant Surgeons has engendered great hopes in our hearts, and we take this opportunity to express our deep sense of appreciation and gratitude to Your Excellency.

Great as is your Excellency's interest in matters relating to Public Health and Sanitation we earnestly hope and pray that Your Excellency will before long inaugurate further measures for the welfare of the people and for the expansion of the scope of usefulness of the Medical profession which is the humblest but earnest endeavour of the All-India Sub-Assistant Surgeons' Association.

In conclusion, we beg to offer once again to Your Excellency our hearty welcome and pray that Almighty God may grant Your Excellency long life, health and happiness, and we hope that Your Excellency's administration will continue to be marked by steady progress towards the peace, prosperity and contentment of the people.

His Excellency the Governor said :-

"Gentlemen,—Let me take this opportunity of extending a hearty welcome to all those who have come to Calcutta to attend the 13th Annual Conference of the All-India Sub-Assistant Surgeons' Association. And let me offer you my sincere thanks for the kindly address which you have been good enough to present to me. On behalf of His Majesty I gratefully accept your tribute of devotion and loyalty to the Throne. I know well that you share with me and with all His Majesty's subjects, the feelings of profound sorrow with which we have learned of the sad bereavement which Their Majesties have sustained. May they find some measure of consolation in the wave of sympathy which is surging up from the hearts of the men and women of all races and of all creeds throughout the length and breadth of their far-flung Empire.

You have expressed your satisfaction at the opportunities which have been accorded to you of serving your country in the theatres of war. I too am glad that you have been given the chance of playing a useful part amid the stern and terrible realities of the past few years; and I congratulate you upon the manner in which you have risen to the occasion. I can speak for Bengal only; and so far as Bengal is concerned, out of a total cadre of 302 Sub-Assistant Surgeons, 83 have volunteered for military service—51 for service in India and 32 for service over-seas. It is, perhaps, unnecessary for me to remind you that your opportunities of rendering valuable service overseas have not come to an end with the cessation of hostilities. The war has left to the victors a huge legacy of work and responsibility. The baleful forces of destruction which have swept like a consuming fire over whole territories have done their work, and have left us faced with a gigantic task of reconstruction. In Mesopotamia in particular there is a wide field for the knowledge and skill of the Sub-Assistant Surgeon; and the generous terms which Government are now prepared to offer to Sub-Assistant Surgeons volunteering for employment under the Civil adminis-

tration in that country will, I am sure, appeal to many of you.

You have been good enough to refer to the attempts which I am making to tackle the vast question of the public health. The problems to be solved in this connection, are indeed, problems of absorbing interest; but they are also problems which are extraordinarily difficult of solution. Look at the task which confronts us in Bengal. We have to endeavour to exterminate the anopheles mosquito in order to rid the country of malaria. We have to embark upon a campaign against the stegomyia mosquito to protect ourselves against a possible invasion of yellow fever. We have to try to revolutionize the immemorial habits of a whole people before we can hope to vanquish that small but malevolent parasite the hookworm. We have to take the field against tuberculosis and cholera, plague and dysentery, leprosy and "kala azar." These are a few of our enemies. What are the weapons which we require to enable us successfully to fight them? Knowledge widely diffused; unlimited funds; and an ample supply of highly trained medical men and sanitarians. But these are precisely the things which we have not got. In place of knowledge we have wide-spread ignorance; in place of wealth we have poverty. In the forging of our third weapon—the supply of trained men—we are, happily, making some head-way. The creation of an adequate supply of Sub-Assistant Surgeons is an important item in the making of that weapon. In Bengal we have already been able to do something to help in that respect. We have largely increased the capacity of our two medical schools—the Campbell in which we are meeting to-day, and the school at Dacca. We hope before long to establish a new school at the headquarters of the district of Burdwan. When I last addressed an audience in this hall I expressed the hope that we should be able to do something to improve the Sub-Assistant Surgeon's lot. The prospect which I then held out has been fulfilled in the shape of a substantial increase of pay. There are other respects in which I personally should like to

see alterations made in the conditions of your service. For example, I shall like to see a course of post-graduate teaching take the place of the periodic grade examinations which you have to submit to under your present conditions of service. A small and very tentative beginning has been made in the right direction by the institution of a small class of post-graduate teaching in this school. I hope that this may prove to be the beginning of greater things.

You yourselves have shown your appreciation of the tremendous importance of spreading abroad a knowledge of sanitation and hygiene by arranging for this exhibition in connection with your annual conference. I hope that in the future some of you may look to sanitation for a career. Your medical qualifications entitle you to undergo the course which leads up to the Calcutta diploma of public Health. There has been little disposition among medical men to do so hitherto because the openings for highly qualified sanitarians have been few. It is my earnest desire, however, to arouse public opinion to the vital importance of the employment of qualified Public Health officers. And I have already stated in public that it is my intention to ask all District Boards after a specified date to arrange to employ a fully qualified Health Officer. And on our part we are fully prepared to provide the necessary course of instruction for those desiring to obtain the public health diploma. It is to you who know the importance of these matters and who are enthusiastic in this cause we must look for a large measure of assistance in dispelling the clouds of ignorance upon sanitary matters to which I have referred. We stand, I hope, upon the threshold of a great advance in our campaign against disease.

In that advance you are destined to play a great and an increasingly important part.

Now I have detained you at greater length than I had intended."

After the speech the whole party repaired to the overhead gallery where His Excellency declared the Sanitary, Scientific and Indigenous Drugs Exhibition open. The distinguished

party was taken round and shown the numerous Exhibits of which the following attracted special interest and attention.

(1) Anatomical Models by Dr. Bamandev Chakravorty, Sub-Assistant Surgeon and Senior Demonstrator of the Campbell Medical School, Calcutta.

(2) Indigenous products of Atropia, Belladonna etc., from Kumaon Govt. gardens.

(3) Apparatus, Instruments, Hospital Requisites and Indigenous drugs from Bengal Pharmaceutical Works, Calcutta.

(4) Roots, Barks and other plants etc., in paper charts from Dr. Panna Lal Sood, Sub-Assistant Surgeon.

(5) Hospital Requisites, from Incell Silk & Co.

(6) Apparatus, Instruments, drugs etc., in large scale from B. K. Paul & Co., Calcutta.

(7) Hospital sundries from Gwalior Pottery Works.

(8) Paper charts and Diagram from Dr. C. A. Bentley, Sanitary Commissioner, Bengal.

(9) Antiseptics & Dressings from Listers Antiseptic Co., and from Andrew Yule & Co.

After spending about an hour at the Exhibition His Excellency, who seemed to be pleased with what all he saw, left. The whole route from the hall to the main gate was lined with Volunteers and on getting into their motor cars both His Excellency and Sir Henry Wheeler were lustily cheered.

The Exhibits were grouped under two heads:—

(I) Sanitary and scientific section, and (II) Indigenous Drugs Section, and the following were the Exhibits.—

I. Sanitary and Scientific Section.—

BENGAL SECTION.

(1) Dr. Bamandev Chakravorty, Sub-Assistant Surgeon and Senior Demonstrator, Campbell Medical School—Exhibits—Anatomical models—Entire Female body (sectionable) and enlarged models of different organs and viscera etc., of the body

(all prepared from paper pulps) praised and appreciated by one and all. *Awarded Gold Medal.*

(2) Bengal Chemical and Pharmaceutical Works, 91, Upper Circular Road, Calcutta—Exhibits—Local made Surgical Apparatus, Instruments and dressings.—*Awarded Gold Medal.*

(3) Lister Antiseptic & Co. 212, Cornwallis Street, Calcutta. Exhibits, Antiseptics, Dressings, and coal tar preparations etc.—*Awarded Silver Medal.*

(4) Andrew Yule & Co.—8, Clive Row, Calcutta, Exhibits—Dressings (bandages, cotton Tow etc.)—*Awarded Silver Medal.*

(5) B. K. Paul & Co., 7, Bonfields Lane Calcutta—Exhibits—Sanitary, Scientific and Surgical apparatus, Instruments and dressings etc.—*Awarded Silver Medal.*

(6) Incell Silk & Co.—1, Esplanade Row—Exhibits—Local made Hospital requisites (operation tables etc.) *Awarded Silver Medal.*

(7) J. B. Norton & Co., Norton Building or 28, Middle Row, Calcutta. Exhibits—Hospital Requisites etc.—*1st Class Certificate.*

(8) The Calcutta Pottery works—45 Tangra Road, Calcutta, Exhibits—Hospital Sundries etc.—*Awarded 1st Class Certificate.*

(9) Civil Sanitary Engineering Bird & Co., Charter Bank Building, Calcutta, Exhibits—Local made Sanitary appliances as Urinals, Privy Bedpans etc.—*Awarded 1st Class Certificate.*

(10) Lt. Col. E. A. R. Newman, C. I. E., M. D., I. M. S. Superintendent, Dacca Medical School—Exhibits—own made sterilizer & Cataract (Lens) extraction Instruments etc.

(11) Dr. C. A. Bentley, Sanitary Commissioner (Writer's Building, Calcutta), Bengal Exhibits—various charts and diagrams of Intestinal worms etc.

(12) Dr. Carter, Superintendent, Indian Museum, Calcutta—Exhibits—Various plants, etc.

All the 3 above mentioned officers have been given letters of thanks and high appreciation.

(13) S. K. Mukherjee, Exhibits—some local made Surgical Instruments (Calcutta).—*Awarded 1st class certificate.*

(14) Rai Bahadur Dr. U. N. Brahmachary, M. A., M. D., P.H.D., Teacher, Campbell Medical School (Calcutta) Exhibits—Special Syringe for injecting metallic Antimony in Kala—Azar etc.—*Awarded 1st Class certificate.*

(15) Dr. K. K. Chatterjee F. R. C. S., Teacher, Campbell Medical School (Calcutta) Exhibits—charts showing effects of Sodium Margoset and Margosic acid in Syphilis and other skin diseases.—*Awarded 1st class certificate.*

(16) Pathological Specimens from Dacca and Campbell Medical Schools.—*Awarded 1st class certificate.*

(17) Dr. Bose's Laboratory, 45, Amherst Street, Calcutta, Scientific apparatus, sour milk, incubation apparatus, sterilizer etc.—*Awarded Silver Medal.*

(18) S.A.S., K. B. Lele—Bombay X—Ray Photos.—*1st class certificate.*

(19) Dr. Narendra Nath Sen, Pathological Demonstrator, Campbell Medical School, Calcutta—Exhibits—Beautiful Microscopical specimens.—*Awarded 2nd class certificate.*

(20) Sub-Assistant Surgeon, Jaipur Dispensary, Cuttack, Exhibits—Operation photos, Stone & Elephantiasis of Scrotum.—*Awarded 2nd class certificate.*

(21) G. K. Mazumdar, S. A. S., Kala—Azar duty P. O. Kaliatola Nawgaon (Assam)—Exhibits—Anatomical clay models.

(22) Dr. S. M. Das, Assistant Surgeon, Darjeeling Victoria Hospital—Exhibits—Foetus etc.

(23) Dr. S. K. Ganguly, S. A. S., Kurigram, (Rangpur) Exhibits—Twins etc.—*Awarded 2nd class certificate to the above three Exhibitors.*

(24) Dr. Ahibushan Mukherjee (Burdwan)—Exhibits some clay Pathological Specimens.—*Awarded 2nd class certificate.*

GWALIOR SECTION.

1. Gwalior State Pottery Works—Exhibits—Excellent Sundries—*Awarded silver medal.*
2. Mr. Kulkarni, S. A. S., Laskar, Gwalior—Exhibits—X Ray Photos—*Awarded 1st class certificate.*
3. Messrs. B. Manik Lall & Co., Laskar, Gwalior—Exhibits Ink, Blanko soaps etc.,—*Awarded 2nd class certificate.*

BOMBAY SECTION.

1. Mr. Narsimha Iyer—Sub-Assistant Surgeon, Bombay Marine Lines War Hospital—Exhibits—Beautiful X—Ray Photos—*Awarded 1st class certificate.*

U. P. SECTION.

1. R. Shorman & Co. Manufacturing Opticians—Safakhana Road, Agra city—Exhibits—Excellent Pebbles etc.,—*Awarded 1st class certificate.*

INDIGENOUS DRUGS SECTION.

1. Kumaon Govt. Gardens (U. P.) Exhibits—Belladonna plants, roots etc. praised by one and all. *Awarded Gold Medal.*
2. Bengal Chemical and Pharmaceutical Works—91, Upper Circular Road—various preparations of Indigenous drugs. *Awarded Gold Medal.*
3. Mr. Panna Lall Sood, Sub-Assistant Surgeon—Kapurthala Dispensary, Daliganj, Lucknow, Exhibits—Local made Tinctures, Indigenous drugs and roots sent in beautiful paper charts—*Awarded Silver Medal.*
4. Industrial Chemist to Govt. (U.P.) Cawnpore, Exhibits—Indigenous preparations of Thymol, Camphor, Soda Potash and various extracts. *Awarded Silver Medal.*
5. Ranaghat Chemical Works (Bengal) Ranaghat, Exhibits—Local made Tinctures and various Indigenous preparations. *Awarded Silver Medal.*
6. K. C. Bose & Co., 2 Kala Chand Sanayal's Lane, Calcutta, Local made biscuits and some invalid foods etc.,—*Awarded Silver Medal.*

7. The Zandu Pharmaceutical works, 276, Bow Bazaar Street, Calcutta, Exhibits—various Indigenous Ayurvedic Preparations—*Awarded 1st Class Certificate.*

8. Messrs. B. K. Paul & Co., Exhibits—various local made drugs, patent medicines and Invalid foods etc., *Awarded Silver Medal.*

9. P. Mukherjee & Co., 56, Neogipukur Lane, Calcutta, Exhibits—Local manufactured essential oils & Crystal works etc., *Awarded 1st Class Certificate.*

10. Mr. Kunj Behari Lal Varma, L.M.P., Secretary of the All India S. A. S., Association, Pharmaceutical section, Meerut, Exhibits—Spring waters, Barks, Roots & Indigenous Drugs—*Awarded 1st Class Certificate.*

11. Sudhansu Brothers, 7, Colootolah Street, Calcutta Exhibits, Crystal works, concentrated waters & Essential oils—*Awarded Silver Medal.*

12. Calcutta Chemical Co. 35/1, Panditia Road, Ballyganj, Calcutta, Exhibits—Margocic acid preparation and some B. P. preparation, *Awarded 1st Class Certificate.*

13. Bengal Acid Manufacturing Co., 1, Harrison Road, Exhibits—Local manufactured acid and some drugs.—*Awarded 1st class certificate.*

14. Dr. V. G. Desai, M. B., Bombay, Exhibits, some plants.—*Awarded 1st class certificate.*

15. Dr. Bose's Laboratory, 45, Amherst Street, Calcutta, Exhibits :—Indigenous Drugs, preparations etc.—*Awarded Silver Medal.*

16. Kaviraj Syama Prosanna Sen, 164, Kalighat Road, Calcutta—Exhibits—Kaviraji Drugs.—*Awarded 1st class certificate.*

17. Kedar Nath Bose, Raruli, Khulna, Exhibits :—Indigenous Drugs etc.,—*Awarded 2nd class certificate.*

18. Crystal Works & Co., 67, Durga Chandra Mittra's Street (L. M. Bysak, Manager) Exhibits—B. P. preparations and Indigenous Drugs.—*Awarded 1st class certificate.*

19. Standard Tablet & Pharmacal Co., 38, Laja Naba Kissone Street, Calcutta, Exhibits—Tablets. B. P. Preparation, essential oils :— *Awarded 1st class certificate.*

Exactly at 12-noon, on the audience reassembling, the Hon'ble Major General W.H.B. Robinson, the President-elect, Lt. Cols. Leventon and Newman re-entered the hall amidst deafening cheers and musical concert, and the President-elect was conducted to the dais and garlanded. Mr. Satkari Ganguli then read the following address :—

MAJOR GENERAL ROBINSON, BROTHER DELEGATES, LADIES AND GENTLEMEN,

As Provincial Secretary of the All-India Sub-Assistant Surgeons' Association, the honour of opening these proceedings, through the courtesy of the Bengal Conference Committee, devolves upon me, and with your permission I shall give a brief sketch of the measures taken to organise the Conference, and of the many important subjects with which it will deal.

Before I go into any question affecting the class to which I have the privilege to belong, and enter into discussion of any other subjects in connection with the Conference, I think my first words to you would be to accord a hearty welcome to you all, who have come here, and some of whom from long distances at *considerable* personal sacrifice, to take part in our deliberations. You have been put to great inconvenience, and I fear that we have not been able to do all that we should have in dispensing hospitality. But I have no doubt that you will overlook it all in the consciousness of the great cause for which you have come here.

I desire also to offer a cordial welcome to all our distinguished visitors, friends and well-wishers, who have graced this meeting with their presence, particularly to mention Major-General W. H. B. Robinson, C. B., I. M. S., Surgeon-General with the Govt. of Bengal, the President-elect, whose deep and unflagging interest which among many and varied arduous duties he has evinced in the Conference, has made it possible for us to meet in this beautiful hall to day.

As my joy knows no bounds when I glance at this august and representative assembly, whose deep-seated sympathy and whole-hearted support have not only afforded encouraging stimulus, but considerably lessened the weight of the arduous tasks we have undertaken to perform, my heart fails when I wish to take this public opportunity of giving,

expression to the genuine feelings of Bengal upon the untimely death of Mr. P. S. Ramachandrier, the General Secretary, whose unremitting hard labour, undiminished vigour, youthful energy and ardent love for the class since the birth of the Association have brought the members of the profession to the graceful estimation of the public. As a veteran leader and an astute organiser he was one of those who founded the Association, and his sudden passing away has not only been an incalculable loss to the class, but I am afraid the tree which he planted unostentatiously, and watered and nursed for these 13 long years with undivided care, patience and perseverance, and which has now commenced to blossom, or if I may be permitted to add, to be laden with fruits, has received a severe shock. It is indeed Bengal's misfortune that this meeting without Mr. Ramachandrier will be very much like the play of Hamlet with the part of Hamlet left out, and I am afraid it will be but a very poor tribute to the illustrious dead if I ask you to convey to the members of his family our sincere condolence to them in their bereavement, or if I request you, gentlemen, to stand in solemn silence for half a minute.

Now, brethren, you are to set your house in order and fill up the void caused by the disappearance of Mr. Ramachandrier, and I think I am justified in asking you to elect such a person from amongst yourselves, whose previous experience, past record of services, unstained character and whole-hearted devotion to your cause will amply justify your selection.

In 1906 the Association was first started in Bombay, and although it has not yet attained its majority it is beyond dispute that it has passed over the critical period of helpless infant life, and the expectant public may now safely look forward to a reasonable tenure of longevity. We feel confident that the generous public and the benign Govt. will take this Association into full confidence, and recognize its value and importance. In India it is the only public institution, which is worthy of universal sympathy and support in matters medical. It is, I hope, not in vain that I appeal to our own men, who have not yet become members to join the Association at once, as without their support it will meet with premature death.

In 1910, the Calcutta Branch was opened with Col. Newman, the then Superintendent of the Campbell Medical School and Hospital as Chairman, and although at times apathy and indifference had swayed it, however, survived through the alternate ebb and flow of adversity

and fortune and did useful work. It was soon followed by two other branches, Dacca and Burdwan, and although the former in spite of its natural advantages lacked in energy and enthusiasm, the latter gave manifestations of life and activity since its inauguration under the patronage of Drs. Mitter and Mukerjee.

Since 1905 Bengal's atmosphere was surcharged heavily with politics, and the general calmness and serenity of the Province was disturbed by anarchical movements, which caused apprehension in the minds of the local organisers, who deferred the question of holding a sitting of the Conference indefinitely, although all the local officials including the then Surgeon-General, The Hon'ble W. R. Edwards, now D. G. I. M. S. were in favour of such an annual meeting. As we were just preparing the ground, the great devastating war began and many of our men were summoned to Military duty. The proposal was to hold it in abeyance till normal condition was restored, and we could not wait long as our brethren shook off their lethargy, and their keen enthusiasm persuaded me to invite you to this premier city, once the capital of British India. The Hon'ble D. G. I. M. S., and the Surgeon-General with the Govt. of Bengal were approached for advice, and both of them gave their cordial assent. The Supdt. of this institution, Col. Leventon, to whom our warm thanks are due for his unhesitating response to our various requisitions, and the I. G. of Prisons, who has given us inspiring words of sympathy, the Sanitary Commissioner for Bengal, who has identified himself with the presentation of many valuable Exhibits, and the Principal of the Medical College, and the Health Officer of the Municipal Corporation, who have also helped us in many different ways, and many officials and non-officials, who have stood by us up to now are, in my mind, the congenial forces that have induced us to embark upon this adventure, in which we are mere apprentices. I have omitted to mention one more incident that caused us to delay the sitting.

The programme was practically complete and the invitation cards ready for issue, when suggestions came to postpone the meeting *since* owing to the Influenza Epidemic, which roused consternation in the public mind and caused every one of us to stand fast to our posts to deal adequately with the ungracious visitor. We had to alter the programme, and to readjust our position at no small inconvenience to many. But thanks to the tenacious and unbroken spirit of the local organisers, and the uninterrupted generosity of our patrons and well-wishers, we have anyhow managed to reunite our efforts to reach the

goal in spite of the repeated adverse circumstances, but the issues, we confess, are not free from doubts and misgivings.

The objects for which the Association is established are mainly three-fold, namely:—(1) to promote scientific knowledge, (2) to promote better understanding and mutual relationship, amongst each other and thus maintain the honour and dignity of the class. (3) to facilitate moral, material and social progress.

With a view to carry those objects into effect, conference meetings are held annually at different centres, and it is for you, gentlemen, to pronounce your verdict if we have succeeded in our efforts in these respects after the three days deliberations under the able guidance of our worthy President-elect Major-General Robinson.

We have in the agenda of our programme a Sanitary and Scientific Exhibition, and the Exhibition of Indigenous Drugs. These additions are of recent origin and we are mere novices in this experimental work. We are fully conscious of our pitfalls and shortcomings, but our high ambition is fraught with immense potentialities. Owing to many disheartening conditions the collections of this year are not up to the mark. It is, however, a beginning, and we feel sure, in the fulness of time, it may develop and expand.

Stepping into the shoes of my worthy fellow-workers, who admirably presented their masterly addresses in the previous conferences, I should now with your permission indulge in reviewing the situation and discussing a few cardinal points which are worthy of your consideration. In doing so I make no apology in requesting you to receive my views in the spirit they are presented to you.

In deference to the wishes of a few enthusiastic members, I should have my say about the proposed change of the fundamentals of our constitution. I have tried to study the question from different stand-points with keen concern, and my firm conviction is that any drastic change at this critical period of the history of our Association will prove detrimental to the common interest we are all deeply engaged in. I wish you all not to be impatient or intolerant. Our first and foremost duty is to select a proper successor of Mr. Ramachandrier, and like Mr. Lloyd George, the new General Secretary will form a Coalition Ministry of his own, with choice ministers over various departments, which should include "Finance" and "the organ of the Association," deserving greater attention and care. The details may be formulated in a cool atmosphere. Any rough or incautious

handling will create cleavage and confusion, and demolish the foundation. I must not, however, be misunderstood, as I am anxious to see the Association placed on a solid basis, and brought into good working order according to the altered environments.

After a long agony of four years and a half the world is at peace.

Military duty and From every land under the sun there will go up a sigh of relief and prayer of gratitude. The pride of the *Kaiser* is humbled to the dust, and Germany with all her allies reduced to impotence. Now that the victory of the allied arms is conclusive, and England can well sheathe the sword which was drawn four years ago to vindicate the cause of freedom and preserve the liberties of the world, it is to the undying credit of our class that our Military brethren stood firmly and loyally by their post of duty at the battlefield from the beginning and right to the end, never grudging their best services and utmost resources to secure the final victory, which has now sent a thrill of joy to all parts of the world. "India as a whole", in the words of His Excellency the Viceroy, "has played a great and noble part in the struggle," but by ministering comforts and relief to the staring wounded and sick in the field the members of our class have upheld the tradition and dignity of the noble profession to which they belong. This is done not in a vainglorious spirit but with the satisfaction born of the consciousness of having performed one's duty.

My heart is elated with joy when I think for a moment the valuable services rendered by our men in and beyond India at the critical juncture, but it is, however, with a feeling of remorse and disappointment that I have read various reports relating to the apparent apathy and indifference displayed by a certain section of our community, whose poor response to the Empire's call in the darkest hours of its trial, has been the subject of acrimonious remarks and vitriolic criticism by our friends and foes alike.

It is true that the total number of S. A. S. recruited from the Civil was not so small as one had imagined, but there is no gainsaying the fact that more men were required by the military, and our paramount duty was to rally to the support of the Empire, regardless of our loss of interest and inconveniences.

As no sensible man can afford to lend support to, or sympathise with, any one who has shirked duty, or evaded orders on false pretext or exaggerated plea, it is rather uncharitable and ungenerous to indulge

in wholesale condemnation, and to subject the whole class to abuse and vituperation, which they do not really deserve.

If I have really gauged the feelings and sentiments of the class by reason of my intimate relation with them as their common servant, I can without any fear of contradiction at once state that none of the alleged defaulters were actuated by any motive and their domestic and social conditions coupled with the treatment accorded to them by the Military authorities, from whom they expected clemency as regards status, pay, pension, allowances, annuity and prospects etc, were primarily responsible for the unsatisfactory progress of recruitment.

There was evidence of superabundance of sympathy and exuberance of support in case of the other branch of the service which returned only a microscopic few to the military from the permanent cadre, and several junior members fresh from College and appointed temporarily were endowed with His Majesty's Royal Commission pretty lavishly. Even the Fellows of the Bengal State Medical Faculty and the Members of the Bombay College of Physicians and Surgeons were not forgotten. To crown all, the untrained or ill trained Dressers and Compounders were the recipients of the "I. S. M. D." badge, which was once the monopoly of the Assistant Surgeons and Sub-Assistant Surgeons, and also magnanimous treatment in respect of pay and allowances. The latter were given the status of the 3rd class S. A. S. But by irony of fate, the military machine moved very slowly in case of the down-trodden dumb S. A. S., and it proved too iron, too wooden and inflexible to all intents and purposes, as for instance a Civil S. A. S. divorced from his original appointment in remote Burma or Assam, where his pay exclusive of allowances being 55/- and 50/- respectively, had to serve in Quetta or Karachi and elsewhere including Waziristan and other frontiers on his grade pay only. The military pay was revised latterly, and all were not uniformly benefited.

The picture drawn up above is no exaggeration at all, neither a product of imagination. Even the clerks taken to the D. D. O., and Military Accounts were awarded 50% increment, and in some cases 75%, but the members of our class who were appointed to the more responsible and more arduous duties in the garrison, or in the ambulance train and bore the heat and dust of the day, were compelled to be content with their Military rank and pay only.

It will be unfair on my part if I fail to acknowledge with grateful heart the liberal terms that were conceded to those undertaking liability

for general service, but to my mind they were capable of further improvement, as the main points relating to rank, consolidated pay, charge and outfit allowances, pension, conditions for the officer, his wife and children, promotion, total exemption from the departmental examination, annuity and duration of service were practically left untouched.

Our Association and its organ made strenuous efforts to educate the public mind and to exhort our men to join the military, and many recommendations were made to the authorities for removal of the difficulties that stood in the way of recruiting. Had adequate notice been taken of them, and persuasion preceded compulsion, better results could accrue.

"The mistake of all mistakes is, therefore, that a S. A. S. is *underrated and under-valued*."

No one who does not shut his eyes to the signs of the times can fail to see that the intellectual upheaval now apparent all over the country is vitally affecting the ideas and practices of the Indian communities in matters medical also.

The cordial reception that has been accorded to the Agra L. M. S. scheme by the members of our class is the surest index of the evolutionary changes in the psychology of our men, who are generally up in arms against any factor or factors which stunt this growth or impose artificial disabilities upon their progress and development.

While yielding to none in my appreciation of the necessity for raising the standard of education, and making it recognisable by the General Medical Council of the United Kingdom, I, for one am opposed to any project that prevents our zealous and aspiring youths from acquiring the highest academical distinction in the domain of the healing art and blocks their pathways by any artificial barrier.

The idea of extending the course of study of the Indian Medical Schools from 4 to 5 years is certainly a plausible one, as it is the lowest period in which one can pick up the elementary knowledge of the profession. But it occurs to me that by mere extension of curriculum, the salvation will not be forthcoming, and the material gain and loss should be weighed in an accurate balance, before the experiment is launched upon. There should also be corresponding increase of pay and status.

As we are anxious for an artistic diploma or an ostentatious license, we must not overlook the progress we have made during these 20 long years when many schools extended the course of study from 3 to 4 years, and many subjects were added to the syllabus. The education

has become more costly and living dearer. The present day students are equipped with better education, higher qualification and greater sense of responsibility but the antique policy of "once a S. A. S., always a S. A. S." is still rigidly pursued and the old 50 Rs. rule is still prevalent in the country, although the grave economic crisis is staring us in the face.

It should not be forgotten that poor India is not rich England and the economic conditions of both the countries are not identical. The bulk of the students taking up a career in Medicine and seeking admission into a Medical school is ordinarily recruited from the middle class of people and financial stringency will debar many from pursuing the avocation. The successful students possessing higher diploma will ordinarily settle in big towns and cities and they will be less accessible to the poor, ignorant and illiterate mass. Those, who are now moving heaven and earth for the introduction of a "cheap and inferior brand of doctor" with two years' training will have their hands sufficiently strengthened and urge for an immediate legislation. The valuable Medical Degrees Act of 1916, which is intended to afford a protection to the thousands of medical men who have graduated at the Medical Schools and Colleges in India and to regulate the grant of titles implying qualifications in Western medical science, will lie dormant in the statute book as a dead letter.

A few years ago "intermediaries" were started in Bengal and Bombay under the titles "State Medical Faculty and the College of Physicians and Surgeons," and we are all familiar with the number of "Fellows" and "Members", these two institutions have so far produced. It is, of course too early to give any opinion as to their real scope and utility, and we should wait with patience. But it is doubtful if their introduction will solve the medical education problem in India, or accelerate the medical aid to the rural population.

No physician poorly equipped or well equipped will go anywhere where a livelihood cannot be gained. It is true there are hundreds of villages where a qualified doctor is a *rara avis*, it is also beyond question that the average people cannot afford to undergo a costly method of treatment on account of poverty, but no one applies for the introduction of a new and a lower type of practitioner in their midst.

The only solution lies in increasing the number of dispensaries and hospitals by Government, Municipalities, District and Local boards, Zemindars and Union Committees and placing them in charge of

S. A. S., who must be paid a "living wage," and improving and enlarging the existing schools and opening wide scopes for their products.

How could the supply of qualified practitioners be commensurate with the demand, when in a vast presidency of 31 millions there exist only one fully equipped Medical College and two Medical Schools with limited capacity and limited equipment. The existing schools should be enlarged and fully equipped with hospitals, laboratories and museums, and placed on an uniform basis; the prospectus and course of study should also be uniform. The preliminary general qualification should on no account be inferior to Matriculation. If the Universities refuse to become the examining bodies, there should be properly constituted Board of Examiners, comprising men of eminence and culture.

At present much thought is not bestowed on the selection of teachers and demonstrators. Every subject should have a teacher of its own and preference should invariably be given to the experienced graduates of fame and reputation, who have specialised in the subjects for which they are appointed. Special remuneration should be sanctioned to them.

Residential system may be introduced and the male students may be provided with hostels and libraries. Clinical and practical training is not adequate now and a greater attention is needed in these directions.

It is with great advantage the Superintendent of every school, who is ordinarily an I. M. S. officer should take up a major subject for himself and it is desirable that there should be periodical inspection by an inspecting officer appointed by the University, in the event of affiliation, or by the Medical Council, as the case may be, to supervise the coaching and teaching by the teachers and demonstrators.

In every civilised country, a sound secondary education forms the basis for medical education. If the ground is prepared prior to the admission into the schools, there is no reason why the products of these schools should not have free access to the final classes of the Medical Colleges or be permitted to stand for the competitive examination that ought to be held for the Assistant Surgeons' service.

At present owing to the limited scope, many of our aspiring youths are debarred from acquiring the highest qualification conferred by the Indian Universities. Thus not only the vast resources of the country remain unexploited, the abundance of material anxious for higher education at less cost is uncared for and wasted.

I feel confident that if the artificial restrictions are removed and the Medical Colleges are made accessible to the products of these schools, not only the standard of medical education will be substantially increased, but also a large number of our young men will be tempted to take up a career in Medicine, there will be a marked augmentation of qualified practitioners, and the country will profit by it. Any attempt to check the tide and to place the bar before them will simply hamper the medical progress in India. A school for Dentistry may be established to the advantage of many in every province.

The Sanitary Board which is already in existence in Calcutta should have direct relation with Sanitary League, which ought to be established in every District with a president and a few selected members. The District League should have connection with the village Union Committees. Thus a direct relation may be established between the Central Bureau and the members of the Union, which may in collaboration with the District League develop into a regular sanitary organization, which should comprise men of all classes and all shades of opinion. Thus the public mind may be educated and the ignorant and the illiterate mass may become conversant with the actual necessities the authorities are devising for their welfare. The printed pamphlets hitherto issued, or the almanacs, with instructions, have seldom reached the people for whom they were intended. So long our mass remains uneducated, the printed literature will have no effect.

Every Municipal town and district is now going to be provided with a Sanitary Officer and in course of time every sub-division may have the services of such an officer also, and after a course of training the members of our class may make good Sanitary Officers and there is no reason why outsiders are invited to fill up these appointments.

There should be an analytical bureau established in every province for analysis of every kind of patent drugs and invalid food which are exposed for sale to the public. So many spurious and adulterated stuffs are now in evidence in the market that some restrictions should at once be imposed upon their sale. Unregistered and unanalysed drugs and patent foods should be discouraged by special legislation, if necessary.

By a stroke of the pen the gracious authorities have effaced the capital "S" from I. S. M. D., and this wise and right course has met with universal approbation. Our Status. The sooner the other "S" in "S. A. S." is erased and the

hideous designation is forgotten the better, as it is an odious nomenclature inconsistent with the position of the individual. We devoutly trust that a better substitute will be found. The rank "Warrant Officer" in the military conveys no meaning and carries no weight. A dignified rank should be sanctioned and in all fairness to the class, the Indian commission should be approved and granted to the S. A. S. irrespective of grades, and in the case of deserving senior members, the royal commission should be conferred.

A few years ago the Government of India on the recommendation of the provincial heads sanctioned promotion of deserving S. A. S. to the Assistant Surgeon's grade. We are really happy to live in the province where the members of our class are deriving benefit from the salutary circular. It is, however, with disappointment we have noticed that even after representation some ill-fated provinces are still deprived of the privilege. We fervently hope that in no time the concession will be extended to the rest of the provinces, where there is no paucity of capable men for such promotion. The consensus of opinion goes in favour of revising the conditions of promotion, and it is put forward that men from the 2nd and 1st grades may be eligible also, as the 20 years rule prevents a S. A. S. from obtaining a lift after the professional examination and thus there is no prospect of any pecuniary gain. I beg to invite the attention of the authorities in this direction.

Its scope is capable of enlargement, as it does not embrace many matters relating to the medical administration of the land. This should be extended to the other provinces, where there is none, and every Council should be well represented by our class, and our Association should be empowered to return members to the Council. In the Provincial and Imperial Election Franchise, our members should have potent voice to safeguard their communal interests. There should be an Indian Pharmacopoeia published under the authority of this Council.

Our warm congratulation will go for those who have helped directly or indirectly in the revision of our pay for Bengal, Madras and a few other fortunate provinces. We have got a decent beginning, but to our disappointment, the terminus is not what it should have been. Every year we are recommending for a higher scale of pay for every province, but if my information is correct, there are still some provinces where 30 Rs. rule is dominating. The famine price is ruling the market and

there is hardly any one who is not affected by the economic pressure from every direction. Even 50 Rs. which was a year ago considered to be a good beginning is now felt to be inadequate on account of the considerable rise of prices of all necessities, including the wages of the servants. It is essential to introduce the Bengal scale to the unfortunate provinces without delay, as serious discontent is prevailing in the minds of the S. A. S. there.

When 600 can be given to a member of the Provincial cadre, a S. A. S. can be offered at least half of it in special cases, and in certain appointments.

The grades are too numerous now; they can be reduced to a reasonable extent without impairing efficiency, and the percentages in the two senior grades may be appreciably increased. I think one Senior grade is enough.

Our brethren under the District Boards and Municipalities are at great disadvantage by not having the same standard of pay as is provided for the Govt. employees. They should be adequately paid and graded on the lines of Govt. Sub-charge and Local allowances almost in every appointment are decidedly poor; also the allowances for epidemic and other duties involving heavier responsibility and grater risk of life. There are many postings where there is no practice, and the places are notorious for unhealthiness and dearness and the work is truly exacting. There should be substantial increase in this direction and also for outfit and field allowances.

Travelling allowance for the officer and his family is inadequate, as it does not cover the actual expenses. For the military, "E" form should be re-introduced, and for the civil, 2nd class should be permitted by rail and steamer. The scale of daily allowance needs a revision as actual expense is denied in 99% of cases.

Many of the appointments formerly held by the S. A. S. at the District and Sub-divisional head quarters are now given over to the Assistant Surgeons by reason of their higher qualification and in response to the public demand. It is true that the taste of the people is now changed, but as the big towns and cities are well supplied with L. M. S., and M. B., it is not the necessity which calls for the appointment of an Assistant Surgeon in place of a S. A. S., who can better serve the people, for whom the charitable institution is established. It will be our great misfortune if Jail, Railway, Police and kindred appointments only are reserved for S. A. S., and all coveted posts are taken away from them.

We have heard of a type plan for our family quarters, approved by Govt. If the head of the department be pleased to have an inspection of the quarters allotted to the majority of our class, he will simply be astonished to look at their deplorable condition. Many of them are no better than cattle sheds, and unfit for human habitation. There is no provision for compensation for inferior quarters, and the house rent allowance permissible under the regulation is absurdly low, particularly, in case of S. A. S., appointed in Calcutta, Dacca and other big towns, where no family quarters are provided, and no house is available even for Rs 30 -p m. A warder in Jail is allowed Rs. 5 for a house, and also a S. A. S. in the Railway and many other appointments. This anomalous condition should be remedied soon, as the want of suitable quarters and adequate house rent allowance is keenly felt by every one of us.

Laboratory Assistants and Demonstrators recruited from our service should be exempted from professional examinations.

The names of the senior S. A. S. should find room in the Provincial Civil List, and postings, leave and transfer of our men should be published in the Provincial Gazette.

The service knows not what Sundays and Gazetted holidays mean: It is therefore necessary to increase the period of casual leave to 20 days, and the privilege leave to two months after every ten months' complete service as in the Military.

Rule I of the rules regulating the grant of casual leave to S. A. S. should be so modified as not to make him responsible for the travelling expenses of the medical officer sent to relieve him, as it inflicts a great hardship upon him, and discourages him from availing of the casual leave due to him, as no local arrangement is possible in many instances. The medical department in general, and the S.A.S., in particular, who are supposed to work on Sundays and other, Gazetted holidays, at all hours, should be exempt from the operation of this rule.

Study leave should be granted to the members of our service. To a class of public servants, who are exposed to various risks and inconveniences in the performance of their duties some consideration should be shown in their pension conditions, and 30 and 25 years rule should be reduced to 25 and 20 years for good service and retirement on medical certificate respectively.

For our service, the rate of wound and injury pension, and pension for widow should be substantially increased, and there should be some allotment for children as in the case of Assistant Surgeons. In the civil side, the widow and the children should be the recipients of pension in case the S. A. S. dies while appointed to Epidemic duties.

For various reasons the jail service is very unpopular and the appointment is often resented by the majority of our men who take it for punishment.

1. The Jail Code places the S. A. S. under the Jailor as far as order and discipline is concerned, although there is a Superintendent and a Medical Officer over him. This is objectionable in as much as it makes the position of the S.A.S., intolerable by frequent interferences by the Jailor, and creates bad blood between these two useful officers of the jail. The sooner the para is expunged from the code the better, as it serves no useful purpose; on the contrary it proves detrimental to the interest of the S.A.S. The S.A.S. who is practically responsible for the health of the jail, may be designated "Deputy Superintendent," and placed direct under the Superintendent in every respect.

2. The onerous task exacted from the S. A. S. appointed in the jail, and the absence of any other source of income, warrant amelioration in respect of pay and allowances. I would fix a decent scale of pay for the jail and a decent rate of allowance not less than Rs. 30 *per mensem*, besides the reward, which is also capable of improvement.

3. The general dissatisfaction arises out of the order relating to the passing of nights inside the jail along with the criminals, although the Jailor and the Deputy and the Assistant Jailors are exempt from the duty. It is deplorable that such a differential treatment is possible in the jail employment.

4. Except in a few Central jails, a whole time Compounder is not provided for the District jails. In the interest of the jail and also in the interest of the class, every jail should have the services of a qualified paid Compounder.

5. Every impartial observer may have noticed the nature of family quarters allotted to a S. A. S. The majority of them are neither sufficiently commodious nor healthy. Many are actually in a wretched condition. Even in this case the Jailor is often given undue preference. Particular attention is invited in this direction.

6. Even the S. A. S. is prohibited from keeping a cow at his own expense for his baby, or from maintaining a small vegetable or

flower garden, although the Jailor, who is the recipient of a fat pay, and many privileges, is very fortunate in these matters.

The Deputy Superintendent of a Subsidiary jail, who happens to be a S. A. S. or an Assistant Surgeon, is not empowered to punish a Warder, although he is primarily responsible for everything in its connection. The Superintendent who is invariably a Sub-divisional Magistrate, is naturally busy with his own multifarious duties, and in the interest of the jail, the Deputy Superintendent may be delegated the power of the Superintendent, and styled "Superintendent." The Subdivisional Magistrate may exercise his power as the District Magistrate over the Head Quarters Jail. In the era of the decentralization of powers, I do not think my suggestion is too ambitious. It does not occur to me that the powers will be abused, if the appointment branch exercises greater discretion in the time of selection. Efficiency will not be impaired by this arrangement.

The number of charitable institutions open to the public are infinitesimal in comparison with the vast population of the country, who cannot afford to pay for the doctor or medicine.

They are not unoften under-staffed and ill-equipped. Many of the existing hospitals are financially embarrassed. These conditions cannot possibly be improved unless the wealthy and educated public are imbued with the progressive realization of their own interest and responsibility and are favourably disposed towards these institutions which are worthy of their care and attention. Private munificence will find a worthy outlet in this direction. It is an open secret that the drugs indented every year for each dispensary is hardly adequate to meet the actual requirements and this is why the general public have little confidence in the dispensary treatment. The hospital outfits, the feeding and the nursing arrangements are also very meagre. The introduction of a Lady Doctor, a Nursing Sister, and a Midwife in their proper places wherever possible is a great improvement. The addition of an indoor hospital enhances the popularity and usefulness of a dispensary.

All interior dispensaries suffer more or less from lack of funds as the public apathy is predominant, and very few are inclined to pay the subscription of four annas a month. It is, therefore, for the Government and the local bodies to come forward and help these institutions.

The Union Committees may be asked to open and maintain at least one dispensary each, and I think they may be authorized to introduce

price tax for this object. Many dispensaries may be opened under the co-operative principle.

The whole question resolves itself into one of money which must be found.

Many girls of respectability may flock to the medical schools if the conditions of their service are materially improved. The time has arrived when there should be a cadre enlisting them for various services under Government and local bodies. Their services should be graded and made pensionable and the renewal of bond system may now be dispensed with. The country is in need of the services of our sister friends and the want should soon be made good.

The school should be open for the successful products of the medical schools and they should be given opportunities to become specialists in Bacteriology, Gynaecology, Obstetrics, Sanitation and Public Health and also in Ophthalmology and Otology, and it occurs to my mind that a course of training under an efficient staff after the termination of their school career will make them fit for dealing efficiently with the special branches of the medical science.

A word to our brethren, our teachers, and our patrons and I have done. Thirteen years ago the Association was born and there is no gainsaying the fact that it has done splendid service in the past. It is a non-political organization, breathing unity and discipline, infusing spirit and energy, and cultivating moral and knowledge. But to my regret the number of members are not as much as they should have been by this time. Think for a moment the British Medical Association, its capacity and strength, and compare it with that of ours. My brethren, if you are really anxious to elevate your position and to secure a better place in the service and society, never fail to join it, and to help it and to feed it with your active support. No nation and no class can improve without self-help, self-culture and self-reliance. No one will give us anything unless we deserve it. We are to prove that we are no bad metal. Ambition is good but we should not be too ambitious. Our motto should be "prove yourself—make good."

As teachers, you can, sirs, make or unmake us. Shaping and moulding lies in your hands. The world will study your mind and capacity through your pupils. You will do distinct dis-service to the class, if you abstract your attention from them and fail to make them your efficient assistants and worthy colleagues.

As patrons, you, the distinguished members of the Indian Medical Service, have helped us and our Association ungrudgingly in the past, and we feel confident you will not forget and forsake us in the future. You have, gentlemen, raised us not long ago from the position of the so called "black doctor" to the present status and we owe a deep debt of gratitude to you for the largeness of your heart and magnanimity of your disposition. Instances can be multiplied, when as foster fathers of the class, you have saved us from the distress, dilemma and dejection. We still recall to our memory the day, when you considerably helped in neutralizing the baneful effect of the propagandism that was ingeniously set forth for the elimination of the members of our class from the precincts of the valuable Medical Registration Act of Bombay by a certain section of the medical men possessing higher degrees whose vault of pride went so far to exclude us as unqualified practitioners. We are also familiar with the torpedo of effusions that was directed towards us while the Agra L. M. S. scheme was under the U. P. legislative anvil by a certain section of medical practitioners who smelt the pungent odour of Iodoform in the person of these professional outcasts and whose object was to monopolise the profession, quite regardless of the fact that "M. B. C. M. is quite in his right place in the bigger hospitals but for many reasons S. A. S. is the man, as it is he, who is going to carry succour to the victims of ill-health in India, i.e., the mofussil."

The Govt. of India, we understand, have under consideration the complete reorganization of both the services (*viz.*) I. M. S. and Assistant Surgeons. We look to you almost with inextinguishable spark of hope that the causes of this important branch of the service which forms the bulwark of the profession should not be lost sight of.

To-day is ours, let us be up and doing,

To-day is ours with its precious hours.

To-morrow we may not see

So let us live that our lives may give

Incentive to all that is good

Let us live to better our fellowmen

We will not be passing this way again.

Gentlemen, I have detained you too long and I have certainly wearied your patience. While thanking you all for the patient hearing I once more offer you a more cordial and sincere welcome to this city and request you to proceed to elect your President.

Mr. Amulya Chandra Mitra, President of the Conference Committee in proposing the Hon'ble Major General Robinson, C. B., I. M. S., to preside over the deliberations of the Conference, made the following sweet little speech.

"Ladies, Gentlemen and Brother delegates.

I have been authorized to propose the name of a gentleman who is to act as the president of this Conference and guide our deliberations. I am really thankful to you that such a high privilege has been granted to me. To propose the president of such a conference is no doubt a very agreeable and pleasant task and I feel proud that my colleagues have done me the honour of performing it. Before making a formal proposal on the subject I think I should let you know without being guilty of betraying a secret that some time before, there was an informal meeting of a number of members of our Association to come to an agreement as to the gentleman whose sympathies for, and intimate knowledge of, the hopes and aspirations of our class, entitled him to our regard; and I am glad to tell you that there was complete unanimity on the subject. Gentlemen, there can be no doubt that the Hon'ble Surgeon General with the Government of Bengal, W. H. B. Robinson, C.B., I.M.S., is well known to all of you. He is at the head of the Medical Service of the Province and by his kind treatment of, and uniform courtesy towards, his subordinates has endeared himself to all of them. His reputation as an administrator of rare ability, great energy and thoroughness is not confined to this province alone but has spread through the length and breadth of this vast country. He is always anxious to know the wants and grievances of the different classes of medical men of this province and takes the earliest opportunity to meet the wants and redress the grievances. We are immensely glad and thankful that he is also sympathetically disposed to our class. Gentlemen, having made up our mind on the subject, we approached him and broached the subject, and I am happy to inform you that he intimated his consent to be the president of the Conference.

Gentlemen, that in the midst of the numerous demands on his precious time he should have made it possible for him to oblige us by acting as our president and guiding our deliberations on this grand occasion, is itself a proof of his interest in the progress of our class, and I hope his opinion of our class is also the same as of his predecessor the Hon'ble Major General W. R. Edwards, C.B., C.M.G., K.H.P., M.D., I.M.S., who in his triennial report on the working of Hospitals and Dispensaries for the years 1914-15-16 stated:— "The Sub-Assistant Surgeons of Bengal are a far better educated body of men than they used to be. As I have already said, of the 69 who have gone to Military duty almost all are well reported on. As a service, these men are, I think there can be no doubt, much underpaid. I am bringing the matter up officially. I find it now impossible to get enough recruits to fill permanent vacancies and almost impossible to fill temporary ones. The cost of living has, of course, risen and many appointments are open to these men on much better pay than Government is now giving." I may now mention with pleasure that it was for the late Surgeon General the Hon'ble Major General W. R. Edwards to make this proposal and for our present Surgeon-General the Hon'ble Major General W.H.B. Robinson to bring into effect the enhanced rates of pay sanctioned by Government. There is still ample justification, I submit, for granting further concessions to our class of medical men. I am quite sure the Hon'ble Surgeon General will concur with my views in the matter.

Gentlemen, having made these observations I beg to propose the Hon'ble Major General W. H. B. Robinson C. B., I.M.S., Surgeon-General with the Government of Bengal and the patron of the Calcutta Branch Association to take the chair and I hope it will receive the unanimous support of all."

Mr. Ashutosh Banerjee in seconding the proposal said:— "Ladies and Gentlemen,

I have the unique pleasure of seconding the proposal so ably made by my learned friend Mr. Amulya Chandra Mitra.

Ladies and Gentlemen, from what I have seen during this brief period of my connection with this conference I feel no hesitation in saying that Major General Robinson is not only the ablest and the most enthusiastic and energetic commander in the Indian Medical Service but also one whose love of impartiality, strong sense of justice, whole-hearted devotion and genuine sympathy towards humanity, profound equanimity and ardent desire to do good to his subordinates both rich and poor, high and low, are beyond conception.

My fellow brethren and sisters, as we are the most ill-treated, the most illpaid and ill-fed people in India, your choice of Major General Robinson as President-elect of this Conference has undoubtedly brought you close to a real boon and providential equipment. Let us unite our thousand voices together and call aloud joyously Major General Robinson a father, a benefactor, a defender, a protector and a rescuer of our class. I once more earnestly appeal to you to unanimously elect Major General Robinson to preside on this occasion to-day."

Mr. Birendra Nath Ghosh while supporting the proposal spoke as follows:—

"Brother Delegates, Ladies and Gentlemen,

I rise with the greatest pleasure and pride to support the resolution which has been so eloquently moved by the previous speakers.

After what has fallen from their lips, it ill-behoves me to inflict a lengthy speech upon you, but I join hands with the previous speakers in recording our deep sense of gratitude to Major-General W. H. B. Robinson, C.B., I.M.S., our worthy President-elect for the kind sympathy which we, Sub-Assistant Surgeons, have always received at his hands. He has been ever ready to extend his patronage to our Association and has helped us with his valuable advice. And we will always cherish a feeling of pride and elation that so eminent a member of the Indian Medical Service has presided over the deliberations at this, the 13th session of our Conference.

I have nothing more to add but assert that Major-General W. H. B. Robinson, C.B., I.M.S., is the fitting president for the occasion, to lead, guide and direct us. Hence, while adding my humble tribute I now take the liberty of calling upon Major-General Robinson to occupy the Presidential chair.

Then the Hon'ble Major General W.H.B. Robinson took the Presidential chair amidst loud and prolonged cheers. The following delegates hailing from different parts of India were introduced to him and to the audience by Mr. Satkari Ganguli, the Provincial Secretary.

Messrs. D. V. Venkappa, Offg. General Secretary, Rai Bahadur Surju Prasad, Niva Sarkar, Manager of the Family Fund and Khandekar from Indore, S. L. Sharma and Kunj Behari Lall Varma from Meerut, N. R. Karandikar, Editor and Narsimha Iyer from Bombay, Rochi Ram A Amesur, Karachi, Ramanikrai K. Desai, Kathiawar, Ram Narayan Lall, Mussoorie U. P., Manna Lall Sharma, Muttra, Maung Kyowlong, Rangoon, Bankey Lall, Fategarh, Dayanidhan, Moradabad, Brij Ballab Mathur, Bareilly, Hiranandani, Hyderabad, Sind, M. L. Kapadia, Baroda, Lekhraj Singh, Aligarh, M. H. Mehta, Marwar, Muraree Lall, Ahmedabad, Bimala Charan Sen Gupta, Benares, Mithu Lall, Cawnpur, Azizuddin, Agra, Satya Ranja Das Gupta, Byomkesh Das Gupta and Maujuddin Khan from Dacca, V. G. Muthayya, Madras, C. N. Kinariwalla and J. H. Bhatt, from Ahmedabad, Satya Charan Maitra and Charu Chandra Panja from Burdwan, K. D. Kulkarni, Gwalior, W. K. Gudwalia, Nagpur, Jamiat Ram B. Desai, Surat, Rai Saheb Bhagwan Sahay Singh, Dehra Dun, D. R. Canak, Mysore.

After the introduction of the delegates Mr. Bimala Charan Ghosh read the following letters and telegrams received from the patrons, members and sympathisers expressing regret at their inability to be present at the conference and wishing it success:—

Deputy Director-General, (for Director General) Indian Medical Service (Camp Delhi) writes as follows:—

"The Director-General regrets that he will not be able to leave the station and be present on the dates fixed for the 13th Annual Conference of the All-India Sub-Assistant Surgeons' Association. The Director-General is very pleased to hear that the Surgeon-General with the Government of Bengal has agreed to preside and trusts that the Conference will be successful."

Col. R. Nil Campbell (retired) I. M. S., late I. G. C. H., Eastern Bengal & Assam writes from Central Jail House-Race Course Road, Lahore, as follows:—

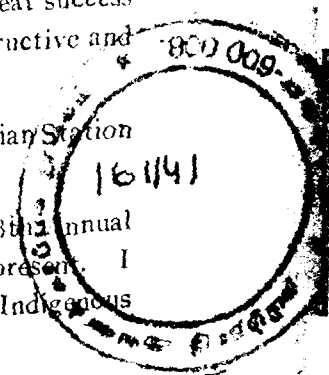
"I thank you for your invitation to be present at the 13th Annual Conference of your Association and regret that I am unable to be present. My sympathy has been with your Association and I hope you will have an enthusiastic meeting and the 13th Conference will be a great success."

The Hon'ble Col. C. Mactaggart, C.I.E., M.B., I.M.S., I.G.C.H., United Provinces, writes from Lucknow.—"I regret I shall be unable to be present at the Annual Conference of the All-India Sub-Assistant Surgeons Association. I wish the Conference a successful meeting."

Lt. Col. H.A. Smith, C.I.E., M.B., I.M.S., Surgeon to His Excellency the Viceroy (Viceregal Lodge, Delhi), writes as follows:— "Please thank the members of the Bengal Conference Committee of the All-India S.A.S. Association for their kindness in inviting me to the 13th Annual Conference and express my regret at not being able to accept their kind invitation. I am unable to get away from Delhi on the dates appointed for the Conference. I hope the Conference will be a great success and I am sure the Exhibition will be both instructive and interesting."

Major A. C. Macgilchrist, M.D., I.M.S., (Indiar Station Hospital, Agra) writes as follows:—

"Many thanks for the kind invitation to your 13th Annual Conference. I regret very much my inability to be present. I should have liked very much to see your collection of Indigenous



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drugs in which I am particularly interested. Wishing you all success."

Lt. Col. P.W.O. Gorman, I.M.S., A.D.M.S., Kohat, writes a very sympathetic letter:—"I thank you for your kind invitation to your Conference and had I been near, I would have been pleased to be present. The Sub-Assistant Surgeons, Civil and Military, have always found in me a good friend. I was among the first, during the time I was Civil Surgeon, Midnapore, to recommend strongly to the Inspector General, Civil Hospitals, Bengal, who afterwards became Director General I.M.S., to abolish the old absurd title "Hospital Assistant" and substitute the present title'. And I hope to still further help on your service before the "Service Reorganisation Committee." Wishing your conference every success."

Similar sympathetic letters were also received from the following Officers:—

Colonel P. C. H. Strickland I.M.S., I.G.C.H., Burma, Colonel G.I.H. Bell, C.I.E., M.B., I.M.S., I.G.C.H., Bihar & Orissa, Lt. Col. Sir Buchanan K.C.I.E., M.D., I.M.S., I.G., Prisons, Bengal, Lt. Col. G. Hutchison M.B., I.M.S., Civil Surgeon, Allahabad, U.P., Lt. Col. O. Meara, F.R.C.S., I.M.S. Principal, Medical School, Agra, Lt. Col. J. M. Crawford O.B.E., M.B., I.M.S., Civil Surgeon, Benares, Lt. Col. S. H. Henderson, M.B., I.M.S., I.G. of Prisons, U.P., Lt. Col. A.E. Water, I.M.S., Supdt., X-Ray Institute, Dehra Dun, Major A. G. McKendrick M.B., I.M.S., Director, Pasteur Institute, Kasauli, Major R. H. Boll, M.B., F.R.C., I.M.S., Professor of Surgery, K.E. Medical College, Major Lister, I.M.S., Cawnpore, Major Knapp, I.M.S., I.G. Prisons, Burma, Dr. A.D. Rewah, Bombay, and Civil Surgeon, Darrang.

TELEGRAPHIC GREETINGS.—From Rao sahib Dr. U. Rama Rao, President of the All-India Sub-Assistant Surgeons' Association, Messrs. Krishna Menon, Abdul Aziz, Subramaniam and Mohamad Ali, Madras, Mr. Ramasamy, Poona, Kirkee, Rai Sahib Khazanchand, Kasauli, Provincial Secretary, Burma branch.

LETTERS WISHING GRAND SUCCESS.—Rai Sahib Guru Nath Sen, Dr. Nagendra Nath Das and Civil Assistant Surgeon Dr. Charu Chandra Sinha, Dacca, Dr. R. K. Joshi, Provincial Secretary on behalf of C. D. & Berar, Dr. Binode Kumar Guha, Indian Station Hospital, Takdah, Mr. Indu Bushan Ray, Kurigram (Rangpur), Dr. Bhujendra Mohan Chaudhury (Dacca), Dr. Jatindra Mohan Guha (Rajshahi) Dr. B. K. Chaudhury (Pabna) and from many other Muffassil members of the Association.

The President now called upon the General Secretary to present his Annual Report. Mr. D. V. Venkappa, Offg. General Secretary of the All-India Sub-Assistant Surgeons' Association read the following report.

"As the holder for the time being of the office of General Secretary of this large Association it is my duty to present to you a record of our activities and achievements during the year that has just elapsed. When, at the last conference, at Agra, you were listening with rapt attention to the impassioned appeals and exhortations of the late Dr. Ramachandrier, the founder and the first General Secretary of our Association, none of you could have thought the icy hand of death would so soon carry him away to the land from whose bourne no traveller returns and deprive us of his talented leadership. But the event has occurred and it is no use weeping over spilt milk. It is a divine test of the moral and mental strength, if any, which we might have gained during the 13 years of our existence, and it behoves us, therefore, to withstand it with manliness and prove ourselves worthy of the grand cause which we have taken upon ourselves to promote.

2. When I stand before this audience and reflect that it represents the culture of a class of medical men whose numerical strength is as great as their usefulness and that the office which I so unworthily fill is the very office which the late Dr. Ramachandrier filled with such conspicuous ability till the moment of his death, a sense of personal inferiority oppresses me and chokes up my feeble voice. But I have a duty

to discharge a duty which I feel I owe to my brethren, and it is the trumpet call of that duty that enables me to proceed.

3. The year which has just elapsed is rather an eventful one. The event of universal importance is the cessation of that most deadly world war that has yet been chronicled, the war which devastated the progressive and prosperous countries of France and Belgium, which tore the Russian and Turkish Empires to pieces, tried the national strength of Britain and eventually rebounded on its own authors who now sue for peace on bended knees. The revision of the antediluvian scales of pay of Civil and Military Sub-Assistant Surgeons for which we were struggling all these years is no more an academic problem, but an accomplished fact, though not quite to our expectations. A member of our class in the Madras Presidency, Rao Sahib Dr. Swami Doss Nadar, who by dint of perseverance and uniform good work had won the rank of Civil Assistant Surgeon, was singled out to act as D. M. & S.O., an innovation probably unprecedented in the annals of the Indian Medical Administration. In Bengal three Sub-Assistant Surgeons, Drs. Sashi Mohan Das, B. C. Banerjee and T. Dutt have been promoted to the rank of Assistant Surgeon. A silver watch bearing the monogram of H. E. Lord Chelmsford was presented to Dr. Abdul Karim for his good work in the Viceroy's camp. Our venerable and beloved comrade Dr. Surju Prasad of Indore is the recipient of the title of Rai Bahadur and Dr. T. C. R. Sharma of Mesopotamia of the distinction of M. B. E. Last, but not the least, the redeeming feature in those far off shores of Burma, 14 Sub-Assistant Surgeons were made Assistant Surgeons, of whom 5, I hear, were further promoted to the grade of Civil Surgeon. A deputation of the Madras branch, which I had the privilege of heading, waited upon the D. G., I.M.S., and S. G. to the Govt. of Madras and discussed various proposals for further reforms.

4. It is but 13 years since the late Dr. Iyer and a few other members of our class formed themselves into a humble Association with the object of making organised and sustained

efforts for improving the moral, material and professional prospects of these unfortunate men. Within this brief space this humble association has sprung into about 50 branches scattered all over India and Burma and even distant Aden, with an aggregate strength of about 3000 members. Of course mere numerical strength does not count. But it is the quality as well as the quantity of their work that contributes to the solidarity and strength of the organisation as a whole. The Calcutta Branch under whose auspices we are assembled here to-day has held meetings every month and even oftener and transacted a good deal of business. The branches at Bombay, Burma, Benares, Baroda, Dehra Dun, Guzerat, Gwalior, Kathiawar, Karachi, Madras, Aligarh, Meerut and Rangoon have been none the less active and all honour is due to the provincial secretaries and other office bearers concerned. But there are however some branches with but a nominal existence, rarely meeting and doing any useful business.

5. The prolonged quarrel about title and designation is yet unsettled and various suggestions are pouring forth from all parts of the country. But, that the present title and designation, L. M. P. & S. A. S. should go, is a matter upon which the whole of India is agreed, though it is the choice of the most appropriate permutation and combination of the letters that is giving some trouble. We hear that our brethren of the Gazetted grade (Assistant Surgeons) will soon be metamorphosed into Surgeons. Coming to the question of pay, so far as the Civil Sub-Assistant Surgeons are concerned, there is still the grievance that the triennial increment of Rs. 5 considerably retards the promotion, so that even at the end of 20 years of service the poor S.A.S. will only be drawing something less than a hundred rupees per mensem whereas other Govt. servants of much less general and special qualifications will be drawing nearly two hundred rupees per mensem. The great disparity in pay and official status between an Assistant Surgeon and a Sub-Assistant Surgeon is the root cause of most of the grievances. Whilst the course of study in the case of an Assistant Surgeon is only

one year longer than in the case of the Sub-Assistant Surgeon and the general educational qualification is not very much higher, it is but just that the relation between the Assistant Surgeon and the Sub-Assistant Surgeon should be so adjusted as to correspond with that between a Deputy Collector and a Tahsildar in the Madras Presidency. It is practically conceded that the professional requirements in either case are almost the same. The prolongation of the course of our study to five years and the recognition of the L. M. P. diploma by the General Medical Council in England, the rank and status of Civil Sub-Assistant Surgeons in military employ, the position of the S.A.S. on Jail duty and the leave and pension facilities of our class in general are also matters of vital importance which tempt me to discussion here, but they are subjects which have been discussed at every successive conference and by men possessing first hand knowledge and on which our journal affords more than ample literature. We have many a time pressed these disabilities and difficulties for the consideration of the authorities and I hope that sooner or later something will be done to mitigate these hardships.

Economy of time dissuades me from indulging in any elaborate discussion of subjects which have been so often discussed already and I shall not therefore take up any more of your valuable time."

Mr. Nivasarkar, Manager of the Family fund presented the following report for the year 1918.

I have the usual privilege of formally putting before you the 8th Annual Report on the working of our Family Fund, an institution which you all well know. The great advantages accruing from this benevolent institution and the solid foundations on which it is based have been brought home to you repeatedly, but in spite of all such efforts, the number of members joining hands in this is very meagre. Where should the cause of all this apathy be sought for? Partly in insufficient advertisement, partly in the insufficiency of the

zeal of honorary workers, but mostly I believe to some one or two discrepancies in the laws of the institution, as brought to our notice by a section of our people. Many people compare this Fund with an Insurance Company, others probably misconceive it as a lottery and a third class again attribute uncertainty to its future solidarity. None of these people are correct as shown by Mr. S.S. Vyas, M.A., LL.B., S.A.S. two years ago. This gentleman said emphatically that the real cause of our slow progress (indicated by our present number being 549 out of a total strength of 10,000 in eight years' existence of the Fund) is our claiming to conduct a public institution mainly on humanitarian principles. Our friends advise that with this noble principle should be combined the economic principle which can even appeal to any business man. Mr. Vyas refuted the idea of calling it akin to an Insurance Company by showing the various differences. The Family Fund is on stronger foundations than Government Securities, Banks, and Insurance Companies for they all depend on certain accumulated capital which does not fail from financial crises. The Family Fund depends on investments which do not depend on such "accumulations," "Capital" or "Crises" but on the existence of Sub-Assistant Surgeons class. The Family Fund can never fail so long as Sub-Assistant Surgeons live unless it were by a mysterious deluge swept away totally and selectively leaving the whole humanity in tact. We pay for elders and our youngsters pay for us and the greater the number of such youngsters (which will always grow as times go on) the greater are our emoluments. So what is needed now is a determination to join it considering it as the best means of (i) helping our fellow members, (ii) sound investment (iii) securing help for our bereaved family and (iv) making large profits by smaller investments. It is both doing good to others as well as doing good to ourselves.

The experience of the past has amply proved this. It is no lottery because there is no element of "chance" or "uncertainty" which is characteristic of all lotteries. Introduce in it the element of "Medical Examination" and "Graded payments

according to age " and make it more equitable, says our friend and non-member and make it more advertised and busily worked by appointing paid clerks, and the institution will be the soundest one that can be devised.

The directors are just further ventilating another very advantageous rule of forming "a reserve fund" and to utilize it as a surplus amount which would lower the paying of calls of such members as would have filled in full and regular membership for the fund, "Twenty years and no more calls to pay" shall then be the greatest boon the fund can bestow on younger members who if they join at the age of say " 22 " shall have no trouble of paying any further calls after they are " 42 ".

I would further suggest the august body on behalf of the Indore Branch that they have now worked up the fund through non-workers whom you would now give rest and entrust the work to some other branch who would really desire taking it up and work it up with better success.

To give you the idea of our working for the last 8 years, I cannot do better than to put before you the stern facts and figures.

The Association and the Fund are under a deep debt of gratitude to all the Administrative Medical Officers, Surgeons-General, and the Directors-General of Hospitals for not only the sympathetic view they take of the body but for the actual help they give in providing the Manager of the Fund with every information of the Sub-Assistant Surgeons under their respective control by sending him free of cost their periodical reports regarding their postings, new admissions etc.

During the year under report the fund was worked with a Board of Directors and Managing Committee with its head office at Indore. The Directors are as follows:—

I. Dr. G. R. Tambe, M. A. B. Sc. L. M. & S., Civil Surgeon, Narsingpur, C. P.

II. Dr. S. N. Deo, L. M. & S. Superintendent, Municipality, Indore.

III. Dr. M. B. Tambe, L. R. C. P. & S. Surgeon to His Highness the Maharaja of Holkar.

IV. Rai Bahadur Dr. Sarjuprasad, Assistant Superintendent, King Edward Hospital Medical School, Indore.

V. P. S. Ramchandrier Esqr., General Secretary of the Association.

VI. S. N. Sarangpani Esqr. Managing Director.

The Managing Committee consisted of Messrs S. N. Sarangpani, B. Y. Kulkarni, S. K. Avas, S. N. Niwasarkar, Y. V. Bhide, C. M. Golyelkar, P. K. Wagh, K. D. Bhalerao, M. S. Kanade, K. D. Kulkarni, N. A. Bando, S. D. Gosavi, G. C. Karambelkar, the Presidents of the Nagpur, Burmah and Panjab Branches with Mr. V. G. Pant Vaidya B. A. L. S. B. as Legal Adviser, the Bank of Bombay as Bankers and Mr. V. P. Mate as Auditor of the Fund.

Mr. S. N. Nivasarkar continued as Manager and Mr. C. M. Golyelkar as Secretary and Treasurer with Mr. S. G. Patwardhan as joint Secretary.

The Register of Members of the Family Fund brings up a total of 549 members to-day (20 being added in the year under report) out of whom 54 have died and 43 are removed from the list as delinquent members. You will find how it represents every part of India, British East Africa, and Burmah, constituting members of every caste and creed, from the table below:—

DISTRICT.	NUMBER.
Bombay	112
Central India	112
Burmah	67
Madras	38
Central Provinces	54
United Provinces	31
Indian Army	38
Bengal	22
Assam	15
Rajputana	22

NATIONALITY	NUMBER.
Mysore	23
British East Africa	4
Punjab	10
Mesopotamia	1
Total	549
Hindus	418
Mahomedans	74
Christian	51
Parsees	3
Total	549
Males	548
Female	1

Out of these 45 deaths have been already reported during the year 1916-17.

I am very sorry to note that during the year under report 9 more deaths have been reported. The following table would show the details regarding the benefit we have been able to bestow upon their survivors:—

Call No.	Names.	RS. A. P.
32	Shekh Abdul Haq of Rangoon, died on 15-11-15 of Diabetes	305 11 0
46	M. P. Pillai of Arcot, died of Abscess (heal) on 19-11-17	289 6 5
47	Motechal Rewashankar of Vijapur, Baroda, died of Haemiplegia on 19-1-18	250 0 0
48	J. J. Munsif of Devgar Baria, died of Heart Disease on 31-1-18	250 0 0
49	P. T. Naikar of Madras, died of Bright's Disease on 13-4-18	250 0 0
50	Prabhat Chandra Sur of Thonze, Burma, died of Tubercular Laryngitis on 18-4-18	225 0 0

Call No.	Names.	RS. A. P.
51	M. V. Narsimha Charya of Bangalore, died of Burns on 14-5-18	225 0 0
52	(Special call) of P. S. Ramachandrier, died of Diarrhoea 7th July 1918	400 0 0
53	Edwardass Pillai of Burma, Influenza	Under Collection.
54	Gandaram died at Goona of Blood poisoning	
		2,195 1 5
		Call No. 33 to 41. 375 7 0
		2,570 8 5

Of the total number of 54 death claims 44 have been already paid before the end of 1917. During the year under report the claims of 8 Sub-Assistant Surgeons were settled and paid. The total sum paid to the heirs of these deceased members this year comes to Rs. 2195-1-5.

You are already aware from the last year's report that during the past 7 years 45 of your brethren had their fair share of benefit of the Fund to their nominated heirs and survivors, and the number during the year brings up a total of 52 members whom the fund has helped at a cost of Rs. 14,547-2-3. You will further be pleased to note that in each case the survivors have received an amount about 5 times the sum paid by the deceased, a feature never possible in any Assurance Company which has to maintain big offices, pay a bonus and heavy dividends to share holders while our fund has nothing such except what is spent for the actual expenses.

The annexed statement will give an idea of the net income and expenditure together with the saving as reserve fund during the year under report. You will note from it that all attempts are made to minimise expenditure.

Statement showing Income and Expenditure of Family Fund during 1918.

Income			RS.	A.	P.
1. Balance on 1st January 1918	...	...	...	41	11 8
2. By desposits to Calls	...	...	...	3,380	4 0
31-33	3	0 0			
24-37	7	0 0			
38-41	70	8 0			
42-43	71	0 0			
44-45	155	0 0			
46	290	0 0			
47-48	556	0 0			
49-51	793	0 0			
52	523	8 0			
53-54	343	0 0			
To Further Calls	568	4 0			
Total	3,380	4 0			
3. Membership Fees and U. Deposits	...	...	109	0 0	
4. Withdrawal from Postal Bank	...	...	300	0 0	
5. Floating Balance	...	...	5	0 0	
			3,835	15 8	
Expenditure.			RS.	A.	P.
1. Payment of claims to the heirs of the deceased S. A. S. of Calls 46 to 52	...	...	2,188	0 5	
2. Clerk's Salary	...	...	110	0 0	
3. Stationery	...	...	20	2 0	
4. Printing charges	...	...	19	14 0	
5. Postal Expense	...	...	80	11 6	
6. Loan of C. I. branch	...	...	30	8 0	
Return to member	...	...	5	0 0	
7. Travelling Expense	...	...	4	2 0	
8. Amount deposited in P. Bank	...	...	510	0 0	
9. do Bank of Bombay	...	...	600	0 0	
10. Miscellaneous	...	...	0	4 0	
Total	...	...	3,568	9 11	
Balance on hand for next year	...	...	267	5 9	
Total	...	...	3,835	15 8	
Deposit in Postal Bank	...	...	476	7 4	
Bombay Bank	...	...	7,158	11 11	

The Family Fund has been run successfully on the lines made known to you, and it only aspires for an unflinching progress, which will depend upon a hearty co-operation of all of us. It has been the desire of the workers of the Family Fund to call for new suggestions, corrections etc. in the rules of the fund as would make the Fund more beneficial and attractive for the members of the Association new and old.

Before conclusion, I shall fail in my duty if I omit mentioning my sincerest thanks to all the Directors, and our disinterested and Honorary workers Mr. S. N. Sarangpani, who has however not separated himself from the Fund as you know that he has been taken up in the Board of Directors, as Managing Director, Messrs. Pant Vaidya, our Legal Adviser, V. P. Mate, our auditor, and last but not least our veteran General Secretary the late Mr. P. S. Ramchandrier who had been helping the Fund in all possible ways and taking a keen interest in its advancement.

Finally, it is my earnest prayer to all of you Sub-Assistant Surgeons in this province where we have met that you will kindly give your patient consideration to this Institution of our Association which, you have now heard from my report, is doing its level best to help our brethren in the most sacred and humanitarian cause.

The President, Major General Robinson, C.B., I.M.S., Surgeon-General with the Government of Bengal rose amidst deafening cheers and delivered the following speech.

"My first duty is to welcome you all here and more especially the various provincial delegates and visitors from other parts of India—who are attending this the 13th Annual Conference of the Sub Assistant Surgeons' Association held at Calcutta—the original centre and the Head—Quarters of Medical education in India.

Next I have to convey to you my very highest thanks for the honour you have done me in electing me as your President. Many of my distinguished predecessors in your Presidential

chair have given formal addresses and traced the history and evolution of the present day Registered Sub-Assistant Surgeon; this I however do not now intend to weary you with but will confine my remarks to a few matters which have recently agitated your Association.

During my service of nearly 33 years I have been very continuously associated with men of your class in all capacities and have a fairly wide experience of your conditions of service, as prevailing in various parts of India. I have served with you in Assam, Burma, Baluchistan, Gilgit, Rajputana and the Central Provinces, and I must say, gentlemen, I have met many very worthy, highly willing and keen members of your service, many of whom I gladly count amongst my friends. I recognise a few old friends to-day but I fear distance, lessened travelling facilities, high prices, epidemics etc., have prevented many of your members from being present at this meeting.

In the past four or five years great changes have taken place in medical affairs in India, which have done much to improve your "status." The passing of the Medical Acts, in nearly all Provinces and the foundation of the State Faculty of Medicine and other duly recognised qualifying bodies have now placed you in the position of "Legally Registered Medical Practitioners in India". Many at first thought these advantages would be small and would have a hampering effect; this, I think you will all agree with me, has not been the case and even the ignorant public in country districts are now grasping the position of the qualified doctor. As you know ever since our Medical Act was put in force, the demands from "all sorts and conditions of persons" to find a means of getting on the Register, are incessant and every possible excuse and effort is made to force our hands to accept men of doubtful training and qualification for admission to registration and even to admit to registration any one claiming to have been in practice at the time of the passing of the acts—trained or not.

For the State Faculty of Medicine, "the transitional clauses" which the Government of India permitted to remain

open till November 1916, are now partly extended, failures are interceded for, and extensions of privileges demanded. Every concession given opens up demands for more and more; and persistent efforts are being made in some circles to "stultify"—the Medical Acts in every possible way. I hope and trust that your Association will keep a watch on these efforts and do all in your power to maintain the standard and *Purity of Western Medicine*.

Now your class has attained qualification, registration and recognition in India. I well know great keenness prevails amongst you to obtain recognition by the British Medical Council. The British Council has great responsibilities to the whole Empire and it will never accept newly invented Licensing Bodies until it is fully satisfied that these comply fully with existing rules and regulations. It is quite useless to say your "Faculty" etc., is just as good as "something else"; time and experience will prove this. It will greatly improve matters and our hopes of recognition once there is a "General Medical Council for all India," to codify regulations and supervise standards. In the present state of medical affairs in India, I think the British Council acts most wisely "in waiting and seeing." As many of you know standards vary very considerably in India, also that of the preliminary education accepted by the various Schools and Qualifying Bodies. Personally, I see no immediate prospect of your recognition.

Now I know another burning question is how the present serving Sub-Assistant Surgeon is to obtain a higher professional qualification or the Membership of the State Faculty. At present technicalities hamper you, and you feel that you have a grievance. It is only very recently however that some parts of India have accepted you as registrable at all. Your standard of training must be steadily raised, recollect also that your practical classes in some places are still infantile, your means of instruction in many important special branches very defective; take Midwifery.—I recently read in the report of one School that in the attached Hospital "one case of normal labour

was available during the year under review". Many of the other special branches are also very much behind hand or non-existent. Now it is up to your Association to press for improvement in your training, then we may expect to be able to satisfy your demands for higher qualifications. At present two years further work at a recognised School is demanded from you before admission to the Membership Examinations, this I think, as things now are, will have to stand.

Another matter your Association has frequently pressed for is facilities for Post Graduate study; this I hope will come before long, and my hope is that a satisfactory course of "Post Graduate" study in a highly equipped and well managed institution will be accepted and counted as an alternative to your "Grade Examinations". These changes will probably have to come first for the Assistant Surgeon, and later will undoubtedly reach your class. I personally think the days of Grade Examinations gone and that up-to-date "Post Graduate" courses when we have the means of carrying them out should take their place. Several smaller matters have also been frequently brought to my notice. Status, the abolition of the word Sub or Subordinate; well, if any of you will look at a Provincial Civil List, you will see you are not the only service in which the word subordinate enters. If I mistake not it begins with the Provincial Civil Service, goes through all the Civil Departments and naturally includes the Medical.

"Titles" are always difficult questions and I think the Medical Department has agitated most on this head of any in India, Civil Surgeon, Assistant Surgeon and Sub-Assistant Surgeon are moderately clear and certainly pretty well-known. They are certainly as expressive as any of the modifications suggested.

The question of promotion to the rank of Assistant Surgeon, is not so easy as it looks; in some cases where the promotion was proposed, the gentleman suggested, pointed out how he would be a loser; he had a comfortable job and a good practice and feared a transfer or a spell of general duty; well, in

some cases this has been got over; the next trouble was loss of pay; a Senior Grade Sub-Assistant Surgeon was in some cases to drop Rs. 20 by his promotion; then the Government Orders only permitted promotion to permanent vacancies; these in some provinces—this one especially, are few and far between.

Well now we can turn to other matters. I would like to say a word to any of your Military brothers, who have been able to attend this the Calcutta Meeting. Their branch is an old friend of mine, and I must congratulate them on their excellent war work, they rolled out amongst the first, in the worst days, willingly and cheerily; many came to notice and I think not a few have been suitably rewarded and they will be known as "Subadars and Jamadars" of the Indian Medical Department, I trust, before long. Also that they will obtain higher wound and family pensions. They have done right well and the only trouble was we had not nearly enough of them.

A question which deserves very careful and close watching by your Association is the endeavour to create a lower grade of medical practitioner for working in "Indian villages and rural areas". As you know a very strong and active party are steadily pressing Government to start "Vernacular trained exponents of Western Medicine", who after a "glorified first aid course" will be let loose to practise, stamped with some sort of Government hall-mark. Now, this is to my mind a most backward move, and will only tend to lower and delay the advancement of Western medicine amongst the masses. It is all very well to say there is a large demand for such a class of men; but does any one ever think what is the likely result to the "unfortunate patient," The proposed course of training is to vary from "six months" as suggested by one enthusiast to "two years" according to another.

In your own Association, where the tendency is to gradually cast off your old position and rank yourselves with the graduate class—"quite as good if not considerably better, there comes danger, that to work our institutions and districts something cheap will be required and Government however

reluctantly may be forced into raising a class somewhat higher than the compounder and lower than the up-to-date qualified Sub-Assistant Surgeon". I warn you of this and think it would be well if your Association restrains its too actively minded members. Many of the Local Bodies are finding you a burden and I fear if you press for much further advancement you will see rising to your detriment the modern version of my old and now extinct friend the "Local Class Doctor"—one of your not remote ancestors revived and rehabilitated. I hope your Association will duly take the question up and be prepared to express a decided opinion of the matter.

With the great extension of the Local Self-Government, now coming, the men of the School class will find that they will be more and more the servants of Local Bodies and village unions, many more sanitary appointments, whole and part time, will be introduced; and the aided practitioner will as a natural stage of development markedly increase, this is also a subject for your Association to have some definite line of action ready to meet. Position, fixity of tenure, special training will all come to the front. The ordinary District Board Doctor will gradually become the rural Health Officer, his work will tend much more to disease prevention than treatment, he should therefore be prepared to accommodate himself to the changing demands of the time.

I am glad to bring to the notice of the Association that during the present year and in spite of financial difficulties, the Government of Bengal, was able to sanction the grant of increased pay (so long asked for) to our Sub-Assistant Surgeons. Now, no one begins on a lower pay than Rs. 50, and goes up to Rs. 120, so though later than some other Provinces, the results in the end have been better. I know there still exists some complaints regarding special appointments, such as Jails, Bacteriological Departments etc., but I think on the whole Bengal is offering a fairly decent livelihood to men of your class. Since I have known your class, their pay has practically doubled, so really compared with other services, they have

not much to complain of, and I am sure owing to their much higher training now-a-days they are able to command better emoluments by private practice. Now, gentlemen, I think I have worried you quite sufficiently.

I hope when I take this opportunity to draw your attention to this fine School in which your meeting is held this year that all of you who are not well acquainted with it will try and devote some of your spare time to taking a good look round. I think you will find this School leaves little to be desired in its facilities for good work and sound training of the younger members of your class. I trust you will find that no efforts have been spared to make this meeting a success, it should meet in every way the wishes and aspirations of your highly important Association."

VOTE OF THANKS.

On the President resuming his seat Mr. Bimala Charan Ghosh, General Secretary of the Conference Committee, proposed a vote of thanks in the following terms:—
"Brother delegates, Ladies and Gentlemen.

I rise to propose a vote of thanks to the President, the delegates, the members of the Indian Medical Service, to the distinguished visitors, the Press representatives and others who have graced the conference with their presence. It is no doubt a pleasing duty and I am proud of the privilege. But I am afraid I can ill discharge the responsibility and wish it had devolved upon an abler person.

I am most gratified to find gathered around me in this august assemblage many familiar faces among our patrons, our co-workers and sympathisers, but I very much miss one familiar figure—Mr. Ramchandrier, our late General Secretary, whose untimely death has removed the central figure in our Association. His was a spirit which knew no flagging but infused great zeal and enthusiasm into his fellow-workers.

Ladies and Gentlemen, the path of the Bengal Branch of the All India Sub-Assistant Surgeon's Association has not

been a bed of roses! They had announced their intention of holding the conference in December last but the appearance of Influenza in a pandemic form so far upset all their calculations that at one time it was even apprehended for various reasons, with which I need not trouble you, that the conference might be postponed indefinitely. But, happily, through the kindness of the authorities and above all by the grace of God, the Conference is a *fait accompli* to-day, and we have thus the privilege of enjoying a most pleasing and edifying function this evening.

We, members of the Bengal Branch of the All India Sub-Assistant Surgeons' Association, owe a deep debt of gratitude to His Excellency Lord Ronaldshay, Governor of Bengal, for kindly condescending to open the Exhibition in connection with this conference. By his sympathetic association with our cause His Excellency has greatly encouraged us and we fervently hope and pray that in the midst of his more pressing and responsible work of administration His Excellency will find time and opportunity for looking after the welfare of the Association and of its humble members.

To you, Sir, Major General Robinson, we offer our heartfelt thanks for all the kind sympathy, encouragement and guidance we have received at your hands and for so kindly presiding at and conducting the deliberations of the conference at so much personal sacrifice. But for your personal interest and sound advice the conference could not have enlisted the sympathy of the Provincial Ruler and achieved the success it has done. We are also indebted to you for issuing a general circular, allowing all possible facility to Civil Sub-Assistant Surgeons who were anxious to attend the conference.

It also gives me great pleasure to express the thanks of the Bengal Branch to Col. Leventon I.M.S., Superintendent, and Major Sharples, Deputy Superintendent, Campbell Medical School, for allowing the use of this hall, for their valuable advice and material assistance in connection with the arrangements for the conference and the exhibition, to Col. Buchanan, Inspector General of Prisons, for his sympathy and advice and

to Dr. Bentley, Sanitary Commissioner, for his valuable scientific and sanitary exhibits. Specially indebted are we to Col. Newman, C.I.E., I.M.S., Superintendent, Dacca Medical School, who has helped us in divers ways.

Our thanks are also due to the other members of the Indian Medical Service who have by their kind presence evinced a lively interest in our welfare and uniform sympathy with our aims and ideals.

Brother delegates, you have come here at great personal sacrifice and inconvenience to participate in the deliberations of the conference which aims at the intellectual, social, material and moral advancement of the members of our community. Our welcome to you is simple but none the less hearty. We do hope and trust that you will carry home a pleasant recollection of our good will and fellowship and keep aflame the fire of enthusiasm which the conference has kindled in our hearts.

To you, Ladies and Gentlemen, who have given a practical proof of your sympathy and public spirit by your presence, we offer our most hearty thanks.

We also owe a deep debt of gratitude to the several Press representatives for having graced the occasion with their presence and helping our cause through the medium of their respective newspapers.

We must acknowledge that the success of the Exhibition is in no small measure due to the cheerful response and willing co-operation of the Exhibitors.

Lastly, I should be considered ungrateful if I do not say how thankful we are to the volunteers for their wholehearted devotion to the cause of the Association." (*Cheers of applause*).

Before the conference dissolved for the day Mr. G. S. K. Iyer stood up and seconded the previous speaker thus:—

"Ladies and Gentlemen,

I have a pleasant task to perform and words fail me in expressing the immense satisfaction which our class feels by

having Major General Robinson I.M.S. in our midst as our President to guide us in our deliberations. We appreciate none the less the honour done to us by the I.M.S. Officers and other distinguished men of the profession and also by the public who have graced the occasion with their presence. The distinguished delegates who have spared no pains and expense in coming over here to attend the Conference are to be congratulated upon their zeal and enthusiasm and are entitled to our thanks.

The exhibitors have done a signal service to the profession, nay to the public also--in having given a stimulus to the manufacture of articles similar to their Exhibits and to the investigation of the drugs that they have exhibited. The anatomical models supplied by our brother Baman Dev Chakravarty needs special mention and I think I am echoing the voice of my brethren not only here but abroad in India and outside when I applaud the extraordinary skill and care with which the models have been prepared.

Ladies and gentlemen, permit me to thank you from the bottom of my heart for all the trouble you have taken to grace this Conference with your presence, and I hereby formally support the resolutions so ably put forward by my friend Dr. Bimala Charan Ghosh."

After the vote of thanks was over a telegram was despatched by the President (Major General W. H. B. Robinson) on behalf of the All India Sub-Assistant Surgeons' Association to the Private Secretary to His Excellency the Viceroy, expressing loyalty to the Throne, jubilation at the victory of the Allied Arms and sympathy with their Majesties in their sad bereavement.

With three loud cheers the meeting dissolved. The whole assembly was then treated to tea and light refreshment and a group photo was taken.

At night the delegates and visitors attended and greatly enjoyed a comic performance by Mr. S. C. Mukherjee, generally known as the "Funnyman of Bengal."



13th Annual Conference of the All-India Sub-Assst. Surgeons' Association.
23rd January 1919, Calcutta.

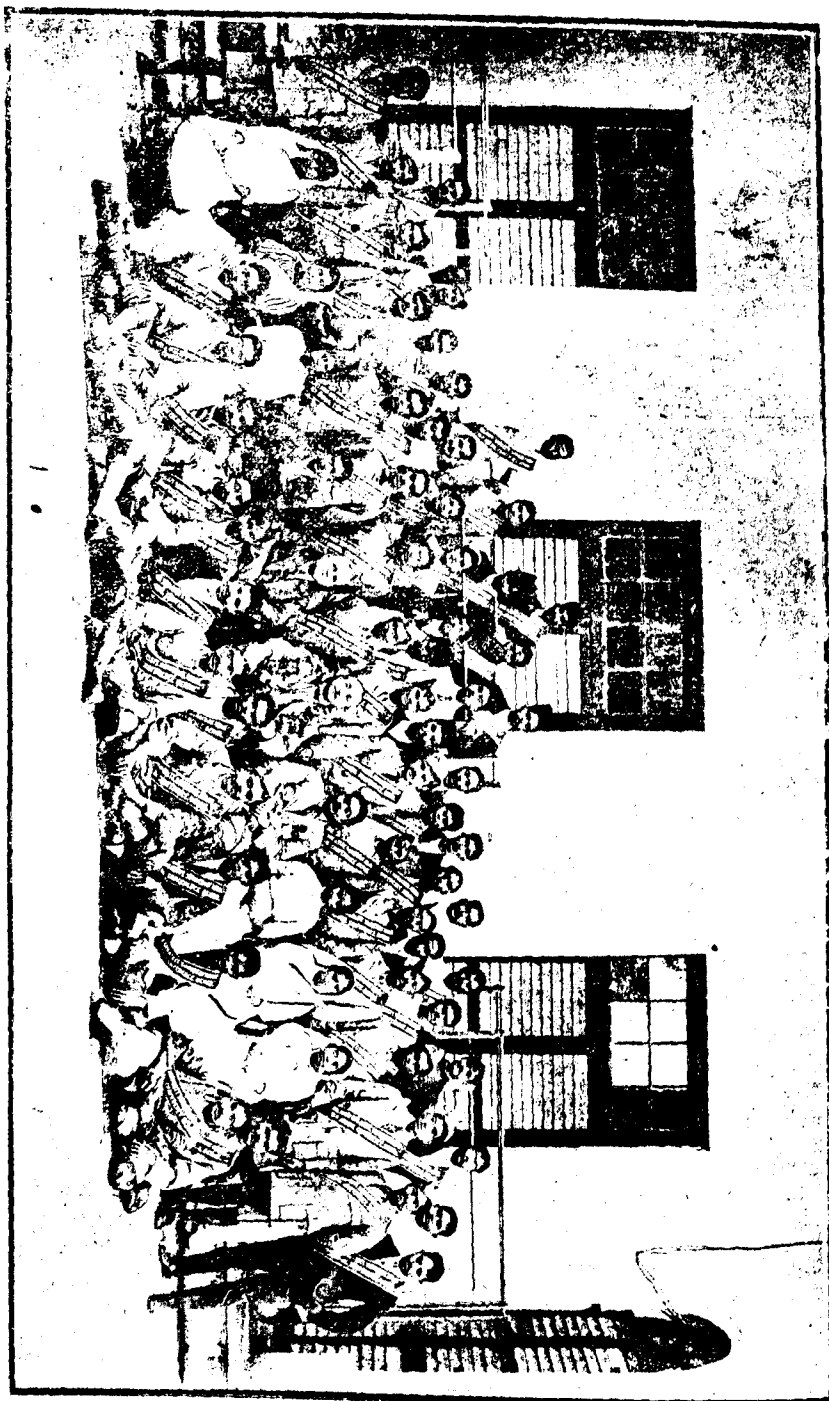
PROCEEDINGS OF THE 2nd DAY OF THE CONFERENCE

24th January 1919, Friday

THE second day of the conference was devoted to the reading and discussion of scientific papers. The members and delegates, about 600 in all, assembled at the Conference Hall at 11 a. m. and voted Lt. Col. Leventon, F. R. C. S., I. M. S., to the chair. The following papers were read, followed, in each case, by a lively and interesting discussion :—

(1) Glaucoma—by Mr. V. G. Muthayya, Sub-Assistant Surgeon, Madras. (2) Rabies and Hydrophobia—In the unavoidable absence of the author, Lt. Col. E. A. R. Newman, C.I.E., I. M. S., the paper was read by Lt. Col. Leventon and highly appreciated by the audience (3) Epidemic of Influenza—written jointly by Messrs. J. C. Bhatt, I. M. S., and K. M. Hiranandani, L. C. P. S. and read by the latter. (4) Nascent Iodine treatment in Pulmonary Tuberculosis—by Mr. Bimala Charan Sen Gupta, Sub-Assistant Surgeon, Benares. (5) Interesting P. M. Chart of 40 cases of Influenza—by Mr. Narasimha Iyer of Bombay. In this connection it is worthy of note that there was a demonstration of a number of medicinal plants and indigenous drugs by Dr. V. G. Desai, M. B., (London). This gentleman had come all the way from Bombay at great expense and personal discomfort with the sole object of revealing the immense possibilities of the indigenous medicinal plants and drugs which abound in this country and had been of immense help in the working of the Pharmaceutical Section of the Association.

At this stage Lt. Col. Sir Leonard Rogers, M. D., I. M. S., Professor of Pathology, eminent researcher and renowned specialist in the treatment of various tropical diseases came in and was received with hearty cheers. On the audience expressing their eagerness to hear something from him he spoke on "The Treatment of Leprosy and Tuberculosis," and kept the audience almost spell-bound by his masterly dissertation, in the course of which he also gave out some of the results of his researches. Thereafter both he and Lt. Col. Leventon left and the assembly adjourned for lunch.



Volunteers at the 13th Annual Conference of the All India Sub-Ass. Surgeons' Association, Calcutta—January, 1919.

When the audience reassembled at 6.30 p. m. Dr. Benoy Lall Mazumdar presided and Dr. C. A. Bentley, M. B., D. P. H., D. T. M., Sanitary Commissioner, Bengal, delivered a most interesting and edifying lecture on "Hook Worm disease in Bengal." The lecture was illustrated by lantern slides imported from America and was so impressive that even laymen who had never even heard of the disease before could not have failed to carry a clear idea of it if they had only attended the lecture. In the course of the lecture the lecturer desired the help and cooperation of the Sub-Assistant Surgeons in combating this disease which was spreading rapidly all over the country. He added that he was moving the Government to grant the Sub-Assistant Surgeons much better terms than they could then look forward to and that the invidious distinction between the different branches of the Medical Service must disappear in course of time, as, in his opinion, the medical qualification was the only standard which counted with men suffering from diseases. The Sub-Assistant Surgeons class formed the bulk of the medical profession and should be given special training in matters sanitary, because then and then alone would it be possible to cope, at least partly, if not fully, with the ravages of the disease on which he was speaking. At the close of the lecture Mr. Hiranandani, on behalf of the assembly, thanked the lecturer for his learned discourse and for the encouraging news that came from him. Mr. D. V. Venkappa followed and spoke in support of the previous speaker acknowledging their indebtedness to the lecturer for the flood of light thrown upon a disease about which so little had been known before. The meeting then dispersed for the day.

PROCEEDINGS OF THE 3rd DAY OF THE CONFERENCE

25th January 1919, Saturday

The third day was occupied in the reading and discussion of the scientific papers left over the previous day, the presentation of the report of the Pharmaceutical Section by Mr. Kunj Behari Lall Varma and the transaction of business by the Subjects Committee. The proceedings were conducted

under the presidency of the newly elected General Secretary, Rai Bahadur Dr. Surjooprasad. The scientific papers read this day were (1) Dieting and Nursing in Disease—by Mr. Satkari Ganguly, Sub-Assistant Surgeon, Rangpur. (2) The use of the Stomach tube (Syphon) without a funnel—by Mr. Priya Nath Mahalanobis, Sub-Assistant Surgeon, Central Jail Hospital, Dacca. (3) Observations on Syphilis and its treatment—by Mr. Nagaswamy, L. M. P., (4) Oriental Sore—by Mr. Giridhar Dutt. (5) Scurvy—by Mr. Jiwan Lall, L.M.P., (6) Puerperal fever—by Mrs. O'Brien, Lady Doctor, Jalpaiguri. In the unavoidable absence of the authors of Nos. (4), (5) and (6) the papers were read by Mr. Narasimha Iyer of Bombay, Mr. Rochiram of Karachi and Miss Salina Hector, Lady student of the 4th year class of the Campbell Medical School, Calcutta, respectively.

The report of the Pharmaceutical Section read by Mr. Kunj Behari Lall Varma, Secretary of that Section ran as follows:—

This being the first report of the Pharmaceutical Section, a department of our Association devoted to a purely scientific study of indigenous drugs, I hope you will excuse me if you do not find the progress satisfactory or the report interesting. The year in question, though the first year of this Section, is the last year of the war and has affected our activities and progress as much as of any other department of life, public or private. Almost simultaneously with the declaration of the armistice, amounting to a glorious victory of the Allied Arms over which we all rejoice, unfortunately came in the most dreadful Influenza epidemic which kept the profession over occupied. Thus you will observe that the want of facilities has been the main cause of the slow progress of the department.

The rules and regulations of the Section as passed at the last annual conference were printed and about 100 copies were circulated to the leading medical men and scientists, but we had only three members and one honorary member during the year. Sydney Gordon Roberts, Esq., I. C. S., District and

Sessions Judge, Cuddalore (Madras Presidency) has been patronising the movement by his valuable suggestions since its very inception. He has also offered a generous donation and consented to be a Patron of the Section.

We had two papers on "Indigenous drugs" and both were published in the journal of the Association. The study of a few indigenous drugs was included in the curriculum of the Agra Medical School and I hope that this example will soon be followed in the other medical institutions also. A scheme for the pharmacological and chemical study of indigenous drugs has been put in operation in the Gwalior State under the care of Major W. D. Nadkarni, Chief Medical Officer of the State and Professor Gajjar of Bombay, and these have published their first monograph. The several provincial governments are experimenting the cultivation of medicinal plants and the manufacture of certain alkaloids. At our last Indigenous Drugs Exhibition at Agra, the U. P. Government Kumaon Gardens supplied us only Bellad roots, but this year, on looking at the various exhibits upstairs, you will be glad to find that they have sent us Bellad roots and leaves, Digitalis, Datura Fastuosa and Stramonium and Hyoscyamus leaves in large quantities, and they are also in a position not only to meet the requirements of Government but also to offer a surplus for sale. Then you see the various preparations of Nim and how they are used with success in curing leprosy and other skin diseases. The Director of Industries, Madras has kindly agreed to help us with his valuable advice in the matter of cultivation of medicinal plants. Thus far, the conditions are by no means discouraging and experiments in this line by qualified medical practitioners, and eventually by private enterprise on a commercial basis, are bound to follow. The success of private enterprise, however, will largely depend upon the adoption of scientific methods similar to those of European countries and upon the facilities for the cheap transport of Indian grown drugs to the chemical and pharmaceutical factories.

Both from a scientific and economic point of view the scheme merits extensive experiments. The Agricultural Department should undertake experimental cultivation of medicinal plants and freely publish the results of their experiments. Facilities should also be afforded for private enterprise as is being done in most European countries. Qualified medical men interested in the subject should be taken as Honorary members on the boards of the Agricultural Department. The Excise Department should take in selected medical men and pharmacutists as its honorary advisers, and also supply *rectified spirit duty free* for experimental and manufacturing work in connection with Indian drugs. Government should open schools in the different provinces for turning out "Licentiates in Pharmaceutical Chemistry." None the less does it behove the landed aristocracy and merchant princes to play their part in this movement of universal importance. They should co-operate and found large hospitals where the therapeutic effects of indigenous drugs may be tried under the watchful care and guidance of eminent Allopathic practitioners. The landed aristocracy, in particular, should arrange for the free grant of land for the cultivation of medicinal plants. The task before us is a huge one and demands the whole hearted sympathy and co-operation of medical men of all grades and ranks and scientists as well.

The new General Secretary, Rai Bahadur Dr. Surjooprasad proposed a vote of thanks to all who took part in and contributed to the success of the conference, which then terminated with three hearty cheers to the King Emperor and the Queen Empress.

In the evening Dr. Amulya Chandra Mitra, President of the Conference Committee, was at home to the delegates and visitors and treated them to tea and light refreshments. At night there was a theatrical performance at the Conference hall by the students of the Campbell Medical School. The subject of the play was "Mughal Patan" and the language Bengali. The student actors acquitted themselves very creditably and their

performance was much appreciated by the delegates and visitors in whose honour it was so kindly got up.

The following are the resolutions of the Subjects Committee passed on the 25th and 26th January 1919:—

The Thirteenth Annual Conference of the All India Sub-Assistant Surgeons' Association, held at Calcutta in January 1919.

RESOLUTIONS.

1. That this conference expresses its deep loyalty and devotion to His Most Gracious Majesty the King & Emperor George V, and offers its heartfelt condolences to the Royal Family for the sad bereavement caused by the death of Prince John.

2. That this conference should and does hereby place on record its high appreciation of the invaluable services rendered to the Association by the late Dr. P. S. Ramachandra Iyer, the Founder and the first General Secretary of the Association, and its deep regret and profound sorrow for his death.

3. That this conference is in entire sympathy with its brother Sub-Assistant Surgeons in their grievances as regards their pay, prospects and designation and resolves to invite the attention of the authorities to the need for early redress.

4. That the Government be urged to pay due consideration to the services rendered by the Sub-Assistant Surgeons, whether Civil or Military, in connection with the war; to promote to the rank of Assistant surgeons such of them as have done good service; to give adequate and substantial help to the families of those S. A. S., who have been killed or disabled in the discharge of their noble duty.

5. That while the conference feels highly grateful to the Government for the various boons that have been conferred on members of its class from time to time during recent years, it most respectfully prays Government to take into consideration the hard times through which the S. A. S. have to pass and the very large increase in the prices of all necessities of life and revise the scale of their pay as below:—

4th Grade.....	Rs. 60 p. m. (on appointment).
3rd „	„ 80 „ „ after 5 years' service.
2nd „	„ 100 „ „ after ten years' service
1st „	„ 125 „ „ do. 15 do.
Senior grade.....	„ 150 „ „ do. 20 do.
Special grade.....	„ 200 „ „ do. 25 do.

6. That the Government of the United Provinces of Delhi & Agra be requested to bring the L. M. S. scheme of the Agra Medical School immediately into force and the other Local Governments to introduce similar Licenses in the Medical Schools under their respective control.

7. That Government be requested to grant Native Commissioned Officer's rank to Military S. A. S. from the commencement of their service.

8. That S. A. Ss working in the laboratories should be allowed a scale of pay ranging from Rs. 100 to 200 p. m. according to their respective grades and that the Government should accordingly be moved through the Director General of the Indian Medical Service.

9. That the following Provincial Secretaries be appointed for 1919.

Dr. Balwantsingh for Sind.

„ R. K. Joshi for Central Provinces.

„ Birendra Nath Ghose for Bengal.

„ K. D. Kulkarni for Central India

„ Sirdeshpande for Bombay.

„ R. Bruhaspati for Burma.

„ Ramanikraik Desai for Kathiawar.

„ Daya Nidhan for United Provinces

„ E. Vijayam for Madras.

„ J. H. Bhat for Gujarat.

„ J. M. Ghose for Assam.

10. That the several Local Governments be requested to sanction the publication in their respective Gazettes of all appointments, promotions and transfers of S. A. Ss. in their employ as is now done by the Governments of the Punjab and Assam and the names of these public servants be included in the Quarterly Civil lists that are published periodically.

11. That Government be moved to revise the scale of local and special allowances granted to S. A. Ss. as below:—

Jail, Epidemic, Presidency and Sub-medical

charge allowances.....Rs 30 p.m.

Dispensary charge allowance..... 20 p.m

Travelling allowance..... 2nd class Ry. fare (of course double) and other actual expenses.

12. That the balance of the Conference Fund that may remain after meeting all the incidental charges be made over partly to the General

Fund of the Association and partly to the District Funds to enable the latter to meet any contingencies of local interest and importance.

13. That Government be moved to sanction for Military S. A. Ss. on active service (1) an allowance equal to the pay of their respective ranks in place of the fixed allowance, (2) separation allowances to their families according to the scale applicable to Military Assistant Surgeons (3) Indian Commissioned ranks and 'E' forms for travelling.

14. That the following office bearers are elected for 1919:—

President.

Dr. S. L. Sharma of Meerut.

Vice President.

Dr. Amulya Chandra Mitra of Calcutta.

General Secretary.

Rai Bahadur Dr. Sarju Prasad of Indore.

Joint General Secretaries.

Dr. S. D. Gosavi, Indore and Rai Sahib Dr. Khazanchand of Kasauli.

Treasurer.

Dr. Rochiram A. Amesour of Karachi.

Editor.

Dr. D. V. Venkappa, Madras.

Co-Editors.

Drs. N. R. Karandikar, Bombay, Kunj Bihari Lall Varma,

Associate Editors.

Drs. S. N. Sharangapani, R. Bruhaspati, S. Ganguli, Maganlall and Ram Narayan Lall.

Standing Committee.

The President, the Vice-President, the General Secretary, the Editor, the President of the Finance Committee, the Manager of the Family Fund, Rai Sahib Dr. U. Rama Rao of Madras, Dr. S. Ganguli, Dr. Jamaitram B. Desai, Dr. Abdul Sayad, Karachi, Rai Sahib Dr. Khazan Chand & Dr. K. N. Menon, Burma.

The Finance Committee of the last year to continue for this year also.

15. That the control of the Provincial funds should vest in the Provincial branches, which should have the right to elect, if necessary, its own Treasurer.

16. That the General Secretary should keep the President informed of the general working of the Association and that the resolutions submitted to Government should bear the signature of the President.

That the Joint General Secretary should help the General Secretary and do all his work during his absence; that the Treasurer should maintain the accounts of the association including those of the branches and that he should produce the accounts before the auditors appointed for the purpose by the council at the conference and that he should be held personally responsible for all amounts held in trust by the Association, that he shall submit monthly accounts of income and expenses to the Finance Committee and shall not keep with him more than Rs. 20 at a time and that he shall attend every Annual Conference at the expense of the Association.

That the duties of the Provincial Secretaries should be to canvass for members and enlist them as such, to organize branches wherever possible within his province, to advise and guide the branches in their activities—in short to further the cause of the Association in his province; he should see that the records of the branches are maintained in proper order and work in co-operation with the General Secretary; he will be allowed actual travelling expenses when travelling on duty.

17. That no memorial should be submitted to the Government on behalf of the Association without the previous sanction of the Standing Committee.

18. That all proposals to be discussed and passed at the Conference should be printed in the Journal two months before the Conference.

19. That the proceedings of the Finance Committee be published in the Journal; that the Finance Committee do continue at Ahmadabad; that the Journal Committee consisting of the General Secretary, the Editor in chief and the Associate Editors of the provinces concerned should decide the publication of papers.

20. That a sum of Rs. 10 per month should be allowed to the Secretary of the Pharmaceutical section for the expenses incidental to his special duties.

21. That the Rangoon Branch having desired that the next conference should be held at Rangoon the matter should be decided within three months from this date.

22. That a vote of thanks be conveyed to Dr. N. R. Karandikar for his services in connection with the conduct of the Journal.

23. That the Agent to the Governor and the Agency Surgeon at Kathiawar be moved to revise the scale of pay of S. A. Ss. in their agencies and in the Native States in the province so as to conform with the scale in vogue in the British provinces.

24. That a hearty vote of thanks be conveyed to the Surgeon-General with the Government of Bengal for having presided at the Conference and for all his help in connection with the conference.

25. That except under unavoidable circumstances which should be explained to the conference, no delegate or office bearer attending the conference will be paid his travelling expenses unless he is present throughout the whole session.

26. That a nominal roll of members of the Association and of the Family Fund be published once a year in the Journal.

27. That a vote of thanks be conveyed to the Reception Committee of the conference for the great personal sacrifice at which they have arranged for the convenience and comforts of the delegates and office bearers, the transaction of the business and success of the Conference as a whole.

28. That the Government of Bombay be approached with the request that S. A. Ss. who passed the M. C. P. S. may be promoted to the rank of Assistant Surgeon immediately after they pass their final examination.

29. That the Government be requested to appoint for each province an examining body similar to the Society of the Apothecaries of London to grant license in Medicine and Surgery and to make the examination open to all S. A. Ss. and Licensed Medical Practitioners in India.

30. That the Government be requested to remove all existing restrictions against the admission of Sub-Assistant Surgeons to the Medical Colleges in India.

31. That the statement of account for Rs. 33-5-6 submitted by the Pharmaceutical Section be passed with a vote of thanks to Dr. Kunj Beharilall Varma, Secretary, Pharmaceutical Section.

32. That the travelling allowance bill of Dr. Ramanikrai K. Desai Provincial Secretary, Kathiawar amounting to Rs. 80-2-0 be passed for payment.

33. That the following gentlemen be the several Office-bearers of the Pharmaceutical Section :—

Dr. V. G. Desai, M. B. (London).....President

Dr. Surjooprasad, Rai Bahadur.....Vice-President.
 „ Kunj Behari Lall Varma.....Secretary & Treasurer.
 „ M. N. Parekh, M. A., B. Sc. Vartej, Kathiawar.....Joint Secretary.
 „ Narasimha Iyer, Bombay.....do.....

34. That Licensed Medical Practitioners and Sub-Assistant Surgeons be constituted a separate electorate with the franchise to return one among themselves to a seat in the Provincial Legislative Councils and that Government be addressed on the subject.

35. That there should be on the Committee for the Reorganization of Medical Services two representative members of the Association, that these two be Rai Bahadur Dr. Surjooprasad and Dr. S. L. Sharma and that Government be addressed accordingly.

36. That all appointments in the Provincial Medical Service should be thrown open for competition to all medical men.

37. That in commemoration of the services rendered by the late Dr. P. S. Ramachandrier a suitable memorial be erected at Delhi by raising donations from Sub-Assistant Surgeons and Licensed Medical Practitioners, that the building so erected be the property of the Association and that a committee consisting of the following gentlemen with power to add to their number do draw up a working scheme and collect donations; and that a part of the funds raised may be utilised as Ramachandra Iyer's Scholarship to be given to a deserving Sub-Assst. Surgeon needing help for higher education as a special case after helping Ramachandra Iyer's sons for their education.

Dr. C. Rama Rao, Rao Sahib
 „ R. Brahaspathy
 „ Gurudat Sarin, Burma
 „ S. Ganguli
 „ Jamotram B. Desai
 „ J. Benjamin
 „ S. L. Sharma
 „ Daji Ramchondra, Rai Bahadur
 „ Surjooprasad, Rai Bahadur
 „ Ram Narain Lall
 „ Kanak, Bangalore
 „ Kazanchand, Rai Sahib.
 „ R. K. Desai.
 „ D. V. Venkappa

Dr. K. B. Varma
 „ Abdul Razak
 „ Rochiram
 „ Amalya Ratna Sen
 „ Maung Kyaw Lun

38. That Sub-Assistant Surgeons on Jail duty should, if they are working in District Jails, be styled as Deputy Superintendents and if they are in charge of Sub-Jails, as Superintendents and never made subordinate to Jailors.

39. That Sub-Assistant Surgeons and Licensed Medical Practitioners all over India and Burma should be exempted from the operation of the Indian Arms Act.

40. That no examination below the grade of the present L. M. P. be contemplated in India.

41. That a committee consisting of Doctors Rai Bahadur Sarjoo Prasad, Joseph Benjamin, and D. V. Venkappa, be appointed to scrutinise the accounts of the late General Secretary, and the work be taken up immediately.

42. That an inventory of the properties of the Association be taken every year and published in the Journal.

43. That a vote of thanks be conveyed to Lt. Col. Leventon Superintendent, Campbell Medical School, Calcutta, for the keen interest he has evinced and the valuable help he has rendered.

44. That a vote of thanks be conveyed to Sir Leonard Rogers for his very instructive and able lecture during the Conference.

45. That a vote of thanks be conveyed to Dr. Bentley, Sanitary Commissioner of Bengal for his able, interesting and impressive lantern lecture on "Hook-Worm."

46. That a vote of thanks be conveyed to Dr. Newman for his instructive lecture on "Rabies".

47. That a bust photo of the late Mr. P. S. Ramachandra Ayyar should be printed on the frontispiece of the Journal for March.

48. That a vote of thanks be conveyed to Dr. Amulya Chandra Mitra of Burdwan (Chairman of the Reception Committee) for his hearty co-operation and hospitality during the Conference.

49. That a hearty vote of thanks be conveyed to the Medical Volunteers of the "Campbell Medical School" for the enthusiasm displayed by them.

MEDICINE AND POLITICS

Rao Sahib Dr. U. Rama Rao writes:—Now that the re-organisation and enlargement of the Provincial Legislative Councils is engaging the attention alike of the public and the Government it may not be inopportune to urge the introduction of non-official Indian medical element in the coming Councils which are all in view. At first sight the subject may appear to be of minor importance, but a deeper study and consideration of the important interests sought to be secured through the agency of this class of medical men will certainly reveal its supreme importance.

Education and health are two corner stones of the state. Eminent researchers silently toiling at their laboratories are from time to time shedding new light on the various vital questions of health and disease. The experiences gained during the dreadful war which has happily come to an end have revealed immense possibilities for the prevention of disease and maintenance of a much higher standard of public health. And countries in Europe are leaving no stone unturned to profit by the discoveries of researchers and the experiences of the war. Even England, reputed for its highly advanced and efficient system of local self-government, has felt the necessity for further improvement and accordingly constituted a Ministry of Health. Such being the case there, what about this vast dependency—India—this most coveted Asiatic possession of the British Empire? Half a million people dying of Plague annually, a million of Cholera, five millions of all kinds of fevers and, as though these were not a sufficient infliction, two and a half million children dying before they are a year old and ten millions of human habitations being but huts fit for pigsties—this appalling picture of the insanitary condition of the country undoubtedly accentuates the need for urgent reform whereby the host of diseases gradually decimating the population may be stamped out and public health improved and ensured.

The sanitary and health policy now in vogue is practically one shaped by the head of the Medical Administration of the

province, because when questions involving medical knowledge are to be decided the Surgeon-General of the province is the only member that can be looked to for advice and it is virtually his individual opinion that prevails. With due deference to his professional skill and attainments it must be said that his knowledge of the habits, customs, religious scruples and sentiments of the people is so limited that his advice can only be a matter of theory. If, as is really the case, most of the earnest endeavours made in the past have aborted, it is due to omission to enlist the support and co-operation of the non official Indian medical men. No system of policy affecting the people, whether in connection with public health or sanitation or epidemic diseases or other allied subjects can bear fruit unless and until it is actively backed up by the hearty sympathy and co-operation of non-official Indian medical practitioners, who live with the people, move with the people, and whose popularity enables them to influence and guide the people to the goal in view. It is a matter of common knowledge that official persuasions, advice or guidance is generally viewed by the masses with a certain amount of fear and suspicion and are therefore evaded as far as possible.

Till quite recently questions of public health and sanitation were being treated more or less as matters of routine and the policy in vogue was therefore a hackneyed, monotonous one. But conditions have of late changed and are still changing. Public health and sanitation have rightly come to be regarded as matters of supreme importance upon which depends the moral and material strength of the state. The altered conditions demand altered "modus operandi," by means of which health reform can be carried to the very hearth and home of the masses and to the events of their daily life. The foremost aim should be to stimulate and encourage voluntary efforts on the part of the people to propagate better ideas of health and sanitation and thereby ensure a higher standard of national health and strength. A task of such great magnitude cannot possibly be accomplished by the solitary head of the

Provincial Medical Administration or by his lieutenants in the districts.

In this province alone there are nearly 2000 registered medical men of varying grades and qualifications of whom not less than 2000 are practising at Madras. Given opportunities they can successfully carry out any measure of reform appertaining to their sphere of activity. If they have not come forward in the past it is not because of any disinclination to take part in the noble attempt to uplift their fellow beings but because they had no place in the councils of the state or in the Corporation. Few medical men who love their profession can win a seat in the council of Government or in the Corporation by standing for election along with those whose sphere of activity is politics of different shades and such other controversial and knotty subjects. But matters have come to a stage at which these men can no longer be kept out of the field, without seriously retarding the progress of sanitation and public health. For the purpose of securing their support and co-operation all registered medical practitioners should be constituted into a distinct electorate and two seats in the Provincial Council and two in the Corporation should be thrown open exclusively to non-official Indian Medical practitioners.

As sanitation and public health do not come under party politics, such as moderates and extremists, Home rulers and Anti-Home rulers, Brahmins and non-Brahmins, Indians and Anglo-Indians, etc., and there can be no two opinions in the matter of their importance to all alike I ask for a separate electorate. I hope the authorities will take the above observations into consideration.

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Vol. XIII.] MARCH & APRIL 1919. [Nos. 3 & 4

AS announced in our editorial of February last, the present issue, though the combined issue for March and April, is the Conference number, devoted entirely to the proceedings of the conference. Although it was not our intention to combine the two issues, yet as the materials for the Conference issue were not to hand till about the beginning of April and the latter issue was also becoming overdue we had no other alternative than to bring out a combined issue at one stretch. Further the annual conference being the only occasion for our brethren from the various provinces of this sub-continent to meet each other and exchange their views on a variety of subjects, and the one that we had at Calcutta being for various reasons a unique one, it is but natural that those of our brethren who could not attend this grand annual function would be all eager to have an elaborate report of the proceedings. We have therefore published almost *verbatim* the various reports read and speeches made in the course of this memorable session.

Apart from the fact that the venue of this conference is the original centre of medical education in India and the historic city which was till recently the capital of British India, the really unique feature of this conference is that for the first time in the history of our humble Association the occasion has been graced by the distinguished presence of no less a person than the Governor of the province, who has also so condescendingly opened

the Exhibition and in that connection offered us words of advice and exhortations, full of sympathy for our hopes and aspirations. It is a matter for immense satisfaction to us that His Excellency is quite in favour of post-graduate teaching taking the place of the periodic grade examinations which our brethren in service have to submit to under present conditions of service, for no one who loves the noble profession of healing human ailments can ignore the vital importance of keeping himself in close acquaintance with the rapid advance which the science of medicine and surgery has been making of late, and such advantage can be acquired not by a mere study of the literature on the subject but by undergoing a course of instruction in a model institution staffed by up-to-date professors and furnished with the latest appliances. We hope that the change so beneficial alike to the profession and to the public will soon be brought to force in all the provinces.

As remarked by His Excellency there has been little disposition among medical men to qualify themselves for the diploma of Public Health, but the reason is obvious, *viz.*, that it does not pay, especially a medical man possessing this additional qualification. As observed by Rao Sahib Dr. U. Rama Rao in his article on "Medicine and Politics" education and health are two corner stones of the State and health being so largely dependent on sanitation it is imperative that there should be a vast expansion of the Sanitary Department and its activities. There should be an adequate staff of medical men qualified in Public Health and Sanitation whose duty should be to maintain a high level of Sanitation and thereby stamp out the host of preventable diseases that are decimating the population. If and when the Department of Sanitation expands itself in proportion to the

needs of the country and the importance of the subject and can offer adequate emoluments our men are sure to avail themselves of the openings and to play their part in the advance of sanitation and public health. Already we find evidence of activities in this direction on the part of our class of medical men and the Annual Sanitary Exhibition which has become a permanent adjunct of the Annual Conference is the idea of one of our esteemed and renowned practitioners, Rao Sahib Dr. U. Rama Rao of Madras whose services in the cause of Public Health and Sanitation are probably unsurpassed in the Madras Presidency.

The Pharmaceutical Section under the able management of that stalwart champion of Indigenous Drugs, Dr. Kunj Behari Lal Varma of Meerut, is a department of our activities meriting much more patronage both from an economic and scientific point of view. There can be no gainsaying the fact that the country abounds in medicinal plants and drugs, though there is a thick veil of ignorance hanging over their therapeutic properties. The instance of the Kumaon gardens of the U. P. and the recent experiments in connection with these plants and drugs open out a vast field for exploitation. The path is unquestionably rugged, especially because the ancient writings available do not afford ample facilities for the identification of the plants or for ascertaining their specific effects on the human system. But the task is by no means impossible for those who have the benefit of a knowledge of Chemistry and laboratory methods of investigation. What is needed is a steady application to the task, co-operation and financial support on the lines indicated in the report of Dr. Kunj Behari Lal Varma.

A general survey of the mass of conference literature reveals that while sooner or later there is bound to be a

wealth of opportunity for our class of medical men there are yet numerous defects and disabilities bearing hard on them. From the pronouncement made by the Hon'ble Surgeon-General W. H. B. Robinson as chairman of the conference it is obvious that so far as our claim to recognition by the British Medical Council is concerned we are still under observation and "there is no immediate prospect of our recognition." We have therefore to direct our attention to the unification of the standards of preliminary education necessary for admission to the medical schools and of the course of studies in those schools so as to satisfy the requirements of the British Medical Council. This and other allied matters were among the subjects of enquiry by the Committee for the Reorganisation of Medical Services in India that recently visited the important centres of India and recorded the evidence of representatives of each class of the profession, among whom were our veteran brethren Rai Bahadur Dr. Surjooprasad, Rao Sahib Dr. U. Rama Rao, Dr. K. G. Lokehere B.A., Dr. S. K. Ganguli and Rai Sahib Dr. Khazanchand. Judging from the general agreement of the evidence of our representatives and the sympathetic attitude of the Committee we can confidently look forward to the dawn of better days and to an era of contentment and joy. Our representatives have condemned in unmistakable terms the anomalous rank, "Indian Warrant Officer," given to Civil Sub-Asst. Surgeons on military duty, the scale of pay, pension, allowances, and treatment and other unsatisfactory features which at present make service, whether in civil or military, least attractive if not positively repulsive, and have suggested terms and conditions advantageous alike to the employers and the employees. Turning to the administrative business transacted during the session it will be observed that a number of resolu-

tions have been passed which would make the somewhat complicated and subtle machinery of the Association run smoothly and steadily. The most notable of these resolutions is the election of Rai Bahadur Dr. Surjooprasad as General Secretary in the place of Dr. P. S. Ramachandrier, whose photo forms the frontispiece of this journal for which and for the Association he toiled all his life. The death of Dr. Ramachandrier, the founder and first General Secretary of the Association cast a gloom on the affairs of the Association and for a time it looked as though matters were at a crisis. Thanks to the Conference, their choice has fallen upon one who by his unflinching devotion to the cause of the Association, mature experience and amiable disposition is most eminently fitted for the sacred trust. It may appear rather cruel that one of the age of our venerable Rai Bahadur should be burdened with the arduous and exacting duties of the General Secretary of a vast Association like ours, but the present condition of the Association cannot permit of any drastic changes either in the personnel of the office-bearers or in the methods of working, and in the circumstances the mantle cannot fall on better shoulders. We also take this opportunity to express our high appreciation of the lofty sentiments which inspired the venerable Rai Bahadur to accept the onerous duties thrust upon him and hope that in the discharge of those duties he will have the hearty sympathy and co-operation of all concerned. We also fervently hope that before the next conference our disabilities and grievances would have been considerably minimised as the result of the labours of the exalted committee that is now probably engaged in drafting our future destiny.



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OBSERVATIONS ON "SYPHILIS AND ITS TREATMENT"

BY

MR. M. NAGASAMY I. M. P., MADRAS MEDICAL DEPT.

To day I place before you my observations on cases of Syphilis and its treatment.

The term "Syphilis" is used to express all the clinical phenomena from the sore on the original point of inoculation—chancre, hard chancre or primary sore, as it is variously styled—and the secondary manifestations on the skin and mucous membrane, to the lesions affecting the subcutaneous cellular tissues, bones and the viscera also, and accordingly they are classified as primary, secondary, tertiary and visceral Syphilis. The primary sore generally occurs in the genitals; of course it may occur in any other part of the body as for example in the lips or in the tips of the fingers, but there has been no such case in my series. The causative organism is known as the 'Spirochaeta Pallidum' or 'Treponema Pallidum.'

Now, I wish to put before you the fact that all cases were not admitted directly with cutaneous secondaries. Some were admitted for sore penis; some with vague pains in the joints, who for months have been treated for chronic Rheumatism. But the majority of the cases I observed were originally admitted for 'Sore Penis' which was later diagnosed to be the 'Primary Sore.'

* Read the All-India Sub-Assistant Surgeons' Conference held at Calcutta.

All the cases admitted for 'Sore Penis' get their blood tested at once for Wassermann's reaction, the preliminary diagnosis being 'Sore Penis' irrespective of whether it is clinically 'hard chancre or soft chancre ; If the Wassermann proves positive, then only it is diagnosed as Primary Syphilis. Out of the 175 cases admitted for 'Sore Penis,' 38 yielded Positive Wassermann's results. Of these 175 cases, 105 were Hindus and 70 Mussulmans. Of the 38 cases with Positive Wassermann's, 30 were Hindus and only 8 were Mussulmans, (*i. e.*) while nearly 30% of the Hindus with 'Sore Penis' had syphilitic infection only 8% of the Mussulmans were found infected. This comparative immunity might be due to the fact that as the Mussulmans get their prepuce slit up at an early age there is a greater chance of the parts being cleaned and lesser chance of the organism lurking in some convenient quarter within the prepuce.

As for the incubation period of primary syphilis, I cannot give any correct data, as the statements of the patients are absolutely untrustworthy. But so far as the secondaries are concerned they are more easily given as the patients do exactly know when they got the sore first. In almost all such cases the patients used to say that they got the sore a month back and in no case has the patient given a period exceeding three months. In the 16 cases I had occasion to observe myself, where there was some delay in beginning anti-syphilitic treatment, either because of the mistaken diagnosis at first or because of some delay in getting the tubes, the rash appeared between the 28th and 36th day after the formation of the original sore.

In most of the cases of 'Sore Penis' which later yielded Positive Wassermann's reaction, the sores were found in the inner aspect of the prepuce on the hinder margin of the corona glandis. In four cases the chancre was found on the dorsum of the penis near the root in three cases and in the middle in one case. Original clinical diagnosis of chancre was correct in all cases ; but some of the cases which were first thought

to be 'soft sore' were later proved to be due to primary infection as these in the course of a few weeks developed undoubtedly syphilitic symptoms with Positive Wassermann's reaction.

The importance of resorting to this test even at the very early stages and in all cases of 'Sore on the Penis' cannot be too strongly insisted upon. It not only makes sure the clinical diagnosis but also paves the way to the early commencement of routine anti-syphilitic treatment, thus preventing the onset of the more irksome secondary and later manifestations. In addition, it clears the doubt in many cases where the patients have been treated for a long time for chronic rheumatism or neglected as having nothing in spite of his complaints of vague pains or unaccountable headache, etc. Indeed, I think I may venture even so far as to surmise that in all cases of Arthritic troubles (of course not very acute) in a young adult Wassermann's must be tried, at least with the view of excluding the possibility of the existence of syphilitic infection.

Of course there have been certain instances where, to my astonishment, Wassermann's yielded *negative* reaction in otherwise undoubtedly syphilitic cases, but here we must be guided by the clinical phenomena and effect of treatment. I am led to think that there will be no harm in trying Antisyphilitic treatment in cases where there are undoubted clinical manifestations of this disease, even though Wassermann's is negative, because, in certain cases, Wassermann's becomes positive after the so-called provocative injection with an Arsenical compound. To illustrate this I here cite a case:—

Patient aged 26.—Admitted for 'Sore Penis' on 19-6-18. Sore single having the characteristics of 'chancre'. Wassermann's negative (First trial) ; hence diagnosed as soft sore. Sore healed up in five weeks under local treatment (cleaned with lotio nigra and dressed with calomel, zinc oxide and boric acid 1: 2: 3). On 20-7-18, patient complained of pains in the joints and some stiffness in walking: slight headache, face flushed, throat congested: epitrochlear and post

cervical glands enlarged. *Rash not seen.* Wassermann's again tried and again negative. On 22-8-18; patient not able to walk without the aid of a stick; much pain in the joints. As the sore was a typical one clinically and as he developed these joint troubles, he was given one Novarsenobillon injection and Wassermann's was again tried on 29-8-18. It was positive ++++. He was given further treatment and was discharged relieved.

Here is a case where this test was the means of getting at the diagnosis.

A patient aged 24 was admitted with the diagnosis of Scabies. He had pustules all over the body except on the face and abdomen; epitrochlear and post cervical glands were enlarged but were thought to be due to Scabies. He had no sore in the penis nor any mark of any previous sore. No itching. He was given treatment for Scabies—Sulphur fumigation bath with proper cleansing of the bed linen etc.—but it was of no avail. In a month, the pustular appearance was lost and each was scabbed over with a dark thick crust which on removal exposed a raw surface covered with a viscid brownish discharge. Then Wassermann's was tried and it was positive ++++ and he was given the necessary treatment, on which his condition improved.

Another patient admitted on 3-12-17, with the diagnosis of T. B. Lungs, because he had cough and was very weak, came under my care on 2-1-18 because he had some urethral discharge. He was also complaining of headache for which he was getting Aspirin gr. V daily before going to bed. This unaccountable headache with sore throat, cough and irregular rise of temperature every now and then made me suspect syphilis and so his blood was tested for Wassermann's though there were no cutaneous manifestations. The result was positive ++++. In the course of a week he developed iritis and was at once put on Anti-syphilitic treatment and when he was discharged he was very much improved and his headache had disappeared for good.

Of the 35 cases of sore penis with Positive Wassermann's, in 26 cases the chancre healed up on the first injection of Novarsenobillon; in 10 cases two injections had to be given before it completely dried up while in 2 cases the sore was found even after the third dose, though of course it had been seen drying up after the second dose.

Of the 13 cases admitted directly with cutaneous manifestations, only three were of a very severe type (*i.e.*) presenting all shades of lesions from vesicles to ecthyma & rupea along with severe iritis. The patients were very weak and emaciated and had profound mental depression. All these conditions markedly improved on the first dose of the Arsenic compound.

Of the six cases of Syphilitic Iritis with joints implicated, in all cases the Iritis was relieved by the first dose of Novarsenobillon, while for the joint troubles more had to be given. I have never seen syphilitic joint trouble still persisting after the third dose.

In the case above quoted which was thought to be T. B. Lungs, and developed Iritis later, the first injection of Novarsenobillon relieved that unaccountable headache and the Iritis; the tension was relieved and the pupils became regular, while in cases where there was some delay in the administration of the drug severer complications arose, but later they too yielded to the effect of this injection *re* the following case.

Patient aged 33. Admitted on 28-3-18 with the diagnosis of piles, as he was passing blood during stools; came under my care because he had also Gonorrhea. The latter complaint was all right in the course of a fortnight. But as in the meantime the patient was passing much blood in the stools, he was examined by dilatation under anæsthesia. There was only some ulceration of the anal canal and no piles internal or external could be found out. There was also spasm of the sphincters. One condyloma like growth was seen in the margin of the external sphincter. In a few days this trouble dis-

appeared, probably owing to the dilatation process. Meanwhile he developed copper coloured rash in the abdomen and thighs. As the case was a suspicious one his blood was tested for Wassermann's and it was positive +++ (16-4-18). But as there was some delay in getting the tubes he was put on half a drachm of Pot. Iodide and one drachm of Liq. Hydrarg. Perchl. daily. Of course inunction with mercurial ointment also was undertaken at once.

On 1-5-18 the patient complained of dimness of vision and head-ache. His eyes were tightly shut; tears were streaming down the eyes; there was much blepharo-spasm; there was also ciliary congestion. He was given one dose of Novarsenobillon on 10-5-18, and as the eye symptoms did not improve, though the condyloma had shrivelled up and the rash disappeared, the eye specialist was consulted.

14-5-18 *Left eye*.—Some tags of Iris on the lens. Signs of Chronic Iritis.

Right eye.—Posterior Synechia; Iritis old; Irregular pupil.

Fundus-details of both eyes obscured; no opacities in the vitreous; hazy vision; patient very intractable; blepharo-spasm largely voluntary, vision hardly likely to improve.

Atropine 1 per cent, and Argyrol one drachm to one ounce applied thrice daily.

20-5-18—Second dose of Novarsenobillon.

26-5-18. Vision—Fingers at $3\frac{1}{2}$ metres both eyes.

7-6-18. Third dose of Novarsenobillon.

10-6-18. Eye trouble disappeared; vision clear; no head-ache; tension normal; but still some ciliary congestion remained and left pupil was irregular.

He was given complete treatment and was later discharged much improved in general health. As an instance of speedy effect of this Amino-Arsenol compound, I herewith quote the notes of the following case.

Patient aged 23.—Treated at another place since 29-5-18 for condylomata with Pot. Iodide 1 dr. and Liquor

Hydrarg. Perchl. 2 drs. daily and locally by dressing with calomel, Wassermann's—positive ++. Admitted here on 31-7-18.

Condition on admission. Patient weak and emaciated; much depressed mentally; had a big sloughing ulcer with unhealthy and prominent granulations surrounding the margin of the anus due to coalescing together of the condylomata.

Condylomata also present on the sides of the thighs, groins and axillae.

10-8-18. First injection of Novarsenobillon.

16-8-18. Hydrarg cream 10 minims.

22-8-18. Condylomata on the axillae disappeared, only dark scars being seen in the place; those on the thighs and groins completely withered and shrivelled up to the size of small raised moles; the ulcer surrounding the margins of the anus drying up. He was given full treatment and when discharged was gay and cheerful and much improved in general health.

Only two cases with nodes on the tibia came under my observation; these disappeared completely after two doses of Novarsenobillon and three intramuscular injections of mercurial cream.

There was one case of Gumma of the Sternum. Condition on admission:—patient aged 37; strongly built; broken gumma on the lower aspect of the body of the sternum; ulcer very indolent; surface covered with protuberant granulations and viscid brownish discharge; margins irregular; thickened and curled up.

Three days after the first dose of Novarsenobillon, granulations were healthy looking, thickening of the margins lessened and the surface of the ulcer bevelled. A fortnight later he was given the second dose of Novarsenobillon and a week later the gumma healed up. Of course in the intervals he had three injections of mercurial cream.

Routine treatment undertaken for those who were under my observation:—

If in a case of sore penis Wassermann's is positive, he is at once put on 6 grs. of Hydrarg cum Creta with an equal dose of Dover's Powder daily and inunction with blue ointment is started at once. This is carried on until Novarsenobillon becomes available for use. Then he is given three intravenous injections of Novarsenobillon and five intramuscular injections of mercurial cream in a period of two months; each injection of mercury alternating with one of Novarsenobillon and with an interval of a week between each. Fifteen days after the last dose his blood is again tested for Wassermann's and if the result is negative he is discharged. If not, he is given one more injection of each and then Wassermann's tried again and so on until it yields negative results. This method has been found to work well in cases where the return of men early to duty is the primary consideration. I cannot at present give any view as to how far this will prevent any later complications.

METHOD OF GIVING INJECTIONS.

Hydrargyri cream is always given deep in the gluteal muscles; the cream pot is put in a basin of boiling water until it becomes fluid within the pot; then it is taken into the syringe and injected as soon as it is sufficiently cool.

Novarsenobillon.—All the cases were given intravenous injections only. As contact with air produces a rapid change in the solution injection must be given as soon as possible after the solution is prepared: as heat also produces the same change, the water used must not be of high temperature.

Novarsenobillon is injected intravenously either in concentrated or in dilute aqueous solution.

Concentrated method.—The dose of Novarsenobillon is dissolved in 10 cc. of double distilled water and taken in an all-glass serum syringe and injected into the vein.

Diluted method.—The powder is dissolved in 100 cc. of double distilled water and allowed to run slowly into the circulation.

The patient's urine is tested before giving the injection, and if there is much albumin and if the patient is very weak he is not given the injection until his general condition gets improved by tonics, etc.; all the cases observed by me were young adults and no serious or badly compensated cardiac cases were met with; if the patient is compensated he is given a purge on the previous day: the injections are given early in the morning (I mean to say that the last meal was on the previous night) and he is not allowed to take anything for at least 4 hours after the last injection, after which period he is given some milk and soda. The injection is given to the patient in his bed, so that the patient need not move about after the injection. One of the veins in the front of the elbow is always chosen for the injection, but in fatty patients, where it is not easy to find a prominent vein there, the veins on the dorsum of the hand, just above the knuckles, are available. In this series, only 3 cases had to be given injection through the veins on the dorsum of the hand.

The patient will have no pain or discomfort if the flow is not too rapid and if there is no escape of the fluid in the surrounding tissues.

In this series, a major portion of the cases were given injections by the concentrated method only.

Re-action.—In cases where the injections were given by the diluted method the following reaction symptoms were noticed.

(1) Rise of temperature between 100° and 103° F with pulse between 100 and 120 per minute.

(2) Motions between 2 and 4; vomiting was noticed in a comparatively fewer number of cases. These symptoms lasted in most of the cases only on the day of injection; but in some cases they persisted throughout the next day. In one case, on the evening of the day of injection temp. was 103° F; pulse 120 and motions 4; vomiting 3; he was given one egg beaten with milk and also soda and he was all right on the third day. This

patient showed remarkably intolerant symptoms on the second injection also and so the injection was stopped. One case after the first injection showed petechiae (haemorrhagic spots) on the extremities and chests; but whether it was due to the injection alone I cannot say.

I had also occasion to observe a very interesting case which I quote here. Patient aged 40; admitted for Acute General Exfoliative Dermatitis; whole body covered with dry scales which on separation left exposed a raw surface causing a severe burning sensation to the patient, no rise of temperature; mouth foul, pyorrhoea; severe stomatitis. History of having had 8 Novarsenobillon and 10 mercurial cream injections within a period of 2½ months. Of course he was given emollient applications and tonics and he improved soon. I believe this may be the result of either the over zealous treatment or the result of idiosyncrasy.

Only very few cases showed such reaction symptoms after the concentrated method. Of course in all cases, there was a slight rise of temperature, 99°, for the patient felt a little cold, but in no case were the symptoms so very severe as noted when the drug was given by the diluted method. I think that the severe reaction symptoms after the diluted method may be in part attributed to the effects of the large volume of foreign fluid thrown into the circulation.

GLAUCOMA

BY

V. G. MUTHAYYA, L.M.P.

Sub-Asst. Surgeon, Government Ophthalmic Hospital, Madras.

Glaucoma is one of the most important diseases of the eye owing to its serious nature, the difficulty experienced in its treatment and the certainty of blindness resulting if left

* Read at the All-India Sub-Assistant Surgeons' Conference held at Calcutta.

untreated. Its accurate recognition is of the greatest importance for the general practitioner, more so because here prompt and proper interference can save grave complications, but a false diagnosis and improper treatment may destroy the eye. I have seen some cases of Glaucoma which have been incorrectly diagnosed and come only when help is no longer possible.

Cases of inflammatory (*acute*) Glaucoma are often confounded with Iritis and Irido-cyclitis, and are accordingly treated with Atropine which has a particular deleterious action in Glaucoma. We all know the three axioms—avoid Atropine in Glaucoma, Eserine in Iritis and Lead in Corneal ulcers. Cases of Acute Glaucoma have been mistaken for gastric derangement while the ocular symptoms were regarded as mere coincidences as a cold in the eye, neuralgia, etc. In rare instances Glaucoma has been mistaken for conjunctivitis. Cases of Glaucoma simple (chronic) which present no external symptoms of inflammation are sometimes regarded as commencing cataract and the patients are put off in expectation of the cataracts becoming ripe so that they delay until it is too late.

Glaucoma (sea-green).—This name was given to the disease by old writers on account of the green reflex seen in the pupil in some cases; but this sign is not distinctive of Glaucoma as it is seen in senile lens, and immature cataract. Glaucoma may be divided into *Primary* and *Secondary*, *Primary* again into *Acute or Inflammatory* and *Simple or Non-Congestive or Chronic*; but these varieties are liable to run into each other, chronic simple may become congestive and congestive may after a time take on the chronic simple form.

Primary Glaucoma consists of those cases in which no previous disease of the eye can be found as a cause.

Secondary, those resulting from some other ocular disease as Iritis or injury, but in the Ophthalmic Hospital, Madras, the chief variety of Secondary Glaucoma seen is Glaucoma secondary to swelling of the lens. The chief variety is pearly sectoral lens and morgagnian cataract in which the cortical portion of the lens becomes liquefied.

Glaucoma is essentially a disease of late middle life and is rarely seen before the age of 45 except in the Secondary form.

It is a bilateral disease, almost always attacking both the eyes: they are but rarely attacked at the same time, the disease of the 2nd eye follows months or even years after that of the 1st.

Aetiology.

The primary cause of Glaucoma remains to a great extent obscure. The chief characteristic symptom is the increase of intra-ocular tension, *i. e.*, increased hardness of the eye-ball at some period in its course. All the other symptoms of the disease result from this. In the normal eye there is a mean kept up between the secretion and excretion of the intra-ocular fluids. Glaucoma is associated with an increase of intra-ocular tension due to an excess of fluid in the eye; this may be produced by hypersecretion, diminished excretion or a combination of both. We all know that the intra-ocular fluid is secreted by the ciliary processes, and that the main outlet for the fluids from the eye is at the iridic or filtration angle. The only constant pathological change found in nearly all cases of Glaucoma is the obliteration of the iridic angle by the application or adhesion of the base of the iris to the posterior surface of the cornea near the sclero-corneal junction. There is a theory that Glaucoma is always preceded by catarrhal inflammation of the uveal tract near the iridic angle, especially the ciliary portion, and that the swollen ciliary processes push the iris base towards the cornea and the increased vascularity of the ciliary processes produces hyper-secretion. Priestly Smith has a very convincing theory that the factor most likely to produce glaucoma is the obstruction of the circum-lental space. Circumlental space is the space between the lens and ciliary processes and when this space is closed, the secretion of fluid into the vitreous, being unable to pass into the anterior chamber, distends the vitreous chamber and pushes forward the curtain composed of the lens, suspensory ligament and ciliary processes and the iris. An actual increase

of tension, however, is not yet present in such an eye because the sinus of the chamber is still present. An acute attack of Glaucoma takes place from closure of the sinus of the chamber by one of the following existing causes as disturbances in the circulation of the blood, or dilatation of the pupil.

The lens grows throughout life; hence the circumlental space is encroached upon with age and this may account for Glaucoma being as a rule a disease of advanced life, the more frequent occurrence of the disease in Hypermetropes inducing congestion of the ciliary processes owing to exaggerated use of the ciliary muscles. There are several other theories. I will not dilate upon them. Abnormal rigidity of the sclera and obstruction of the vena vorticososa. Heredity is said to play an important part. Exciting causes are, as already said, disturbances in the circulation of the blood and dilatation of the pupil. Loss of vaso-motor control in the body or in the eye such as exposure to cold, starvation, sleeplessness, grief, excitement, worry, alcoholism, fatigue. It occurs in patients who are the subjects of gout, heart disease, kidney disease, pulmonary disease and habitual constipation. A few cases of Acute Glaucoma came into the Government Ophthalmic Hospital, Madras, which had an attack of the recent epidemic influenza. Glaucoma has been produced by the dilatation of the pupil following the administration of atropine, cocaine, homatropine. When one eye is glaucomatous, the sound eye is examined as far as possible without any mydriatic, with the electric ophthalmoscope as, in a case or two, after one instillation of homatropine the patient developed in a few minutes acute glaucoma and that, too, before any ophthalmoscopic examination was made; we always make it a routine to instil eserine to the refraction cases which had homatropine, before they go home (*for adults over 30*).

Professor Arthur Thompson's pump action theory was explained and how it seemed probable that osmotic action plays a large part in the transfer of fluid from the anterior chamber into the canal of Schlem and the iris veins and that this action

is strongly reinforced during the working hours by the pump action.

Signs and Symptoms of Acute Glaucoma.

PRODROMAL STAGE.

(1) *Increase of Presbyopia* from pressure on the ciliary muscle and nerve, and through diminution of the power of accommodation. Consequently the patient gives a history of changing frequently his reading glasses.

(2) *Photopsiæ*—subjective sensation of light. Flashes of light before the eye like lightning or a ball of fire, before the eye; or dancing fire flies.

(3) Rainbows round lamp from œdema of the cornea; we see this also in conjunctivitis if there be mucus across the cornea.

(4) Objects seen as through a fog or cloud from pure on retinal vessels.

(5) Pain in the eye and headache accompanied with vomiting.

An acute attack is characterised by pain radiating from the eye, travelling alongside of the head. There is slight fever and vomiting at times; this is likely to be mistaken for a gastric derangement. Vomiting very frequently accompanies acute glaucoma. There may be intermittent attacks of severe glaucoma. The violent pain in inflammatory glaucoma is excited by the compression of the extremely numerous sensory nerves of the ciliary body and iris. Acuity of vision is diminished by changes in the media (cornea, aqueous, lens and vitreous) and by direct pressure upon the optic nerve fibres and their consequent atrophy. Here a word about vision; when central vision is hand movement the vision on the temporal side may be fingers at 1 or 2 metres.

The field of vision can be roughly mapped out in uneducated people by the hand movement test recording results up, down, in and out. At the commencement nasal field will be limited. In the educated, Sciel's perimeter is used. The hand movement test is a very good one which can be practised by all.

Supposing I wish to take the field of the right eye of a patient, I get his left eye closed, closing my right eye. I put the index finger of one hand of mine in front of the patient's eye and ask him to be steadily looking at the index finger; then I put my index finger of the other hand and see how far I could see the second one, compare it with the patient's and put down the result, in, out, up, down. This is applicable to persons who have got some vision.

Conjunctiva.—In acute cases there may be œdema of the lids, chemosis of conjunctiva, injection dusky red in colour. Cornea may be steamy or hazy or œdematous due to œdema of corneal tissues and epithelium. Anæsthesia of cornea arises from œdema of cornea compressing the endings of the nerves; *i. e.*, if you touch the patient's eye with a little cottonwool, the patient does not feel it.

Indistinctness of the pattern of the iris is similarly due to œdema. Dilatation and inactivity of the pupil is the result of paralysis of the ciliary nerves. The pupil is generally oval vertically. Greenish appearance of the pupil. Secondary cataract; greenish, bluish or smoky in colour; can be diagnosed from appearance and history. Anterior chamber is shallow from pushing forward of the iris and lens. *Tension of the eye-ball*.—As I already said the chief characteristic symptom is the increase of intra-ocular tension.

Increased intra-ocular tension may not always be present in the same degree nor at every hour of the day. There will be diurnal variation. Tension may be high at night or early morning on account of the dilatation of the pupil. Tension may be taken digitally and also by Tonometer. If the patient is asked to look down, and if the tips of the index fingers be placed close together on a normal eye-ball and gentle pressure be made with them alternately, a sensation of fluctuation is given to the fingers. The glaucomatous eye ball is harder, slight rise of tension is noted by + 1. still higher T + 2, + 3 denotes stony hardness of the eyeball.

Schiot's Tonometer and Maclean's Tonometer are valuable instruments for delicacy and accuracy; they are much superior to the digital method.

The normal tension with the Tonometer is 15-25 M M Hg. In using the Tonometer, it is essential that the instrument should be placed vertically and that its foot plate should rest on the cornea. We have to take into account the curvature of the cornea in relation to that of the foot plate. So the Tonometer reading is unreliable in buphthalmos, staphylomatous eyes and conical cornea.

Ophthalmoscopic Examination.

At a very early stage, the only thing one can notice is a slight bend or kink in both veins and arteries just inside the edge of disc. This kinking or bending is seen earlier in the veins than in the arteries; sometimes the kinking is only observable in certain direction and as time passes on, it becomes more general until the whole circumference of the disc is involved. When the vessels pass over the edge of the papillæ to go to the retina, they show as bending or, in deep excavations, an interruption of their course, so the vessels in the retina and disc are never seen clearly at the same time, since they lie at different depths, and hence have a different refraction. When the vessels on the retina are seen, the vessels on the floor of the excavation look quite pale and hazy. So the vessels on the disc require concave glasses in the ophthalmoscope sight hole according to the depth of the excavation. In some cases, the calibre of the arteries is contracted while the veins are distended and tortuous, in fact, we see at times a whole convoluted mass of vascular loops lying on the floor of the excavation or pushed to nasal side. Pulsation in the veins is often observed and sometimes a pulsation in the arteries within the papillæ. Arterial pulsation is a sure sign of glaucoma as said by some ophthalmologists, but it is seen in aortic regurgitation. Pulsation of the veins is sometimes seen in the normal eye. The nerve fibres, too, like the blood vessels,

undergo flexion or interruption at the edge of the papilla. If the cupping is deep and total, it can only be a glaucomatous one. Glaucomatous halo—When glaucomatous excavation has lasted a long time the papilla is usually found to be surrounded by a white or yellowish areola which is an atrophy of the choroid about the disc. In the later stages one sees the atrophy of the optic nerve fibres which is most important, so the papillæ become white.

Glaucoma fulminans:— In which incurable blindness in conjunction with the most violent symptoms of inflammation may develop within a few hours.

This is a very rare affection as far as I know.

Diagnosis from 'Iritis'

<i>In Iritis</i>	<i>In Glaucoma.</i>
(1) Pupil is contracted.	1. Pupil semi-dilated.
(2) Synechiae may be present	2. No synechiae.
(3) Tension nearly normal.	3. Tension is always markedly increased.
(4) No cupping.	4. There may be bending of the vessels or cupping.
(5) Corneal sensation normal,	5. Cornea anæsthetic.

When you find a pupil semi-dilated and cornea anæsthetic, think of glaucoma. These are very important signs.

From optic atrophy, the contraction of the field is concentric and there is a marked loss of the colour sense from the earlier stage. Cupping is shallow in optic atrophy; the disc is white in colour.

Chronic glaucoma (also known as simple or non-congestive) includes those cases in which the disease often progresses in an insidious manner extending often over several years without pain or evidence of congestion. There may be slight undue tortuosity of the perforating vessels or anterior ciliary vessels. The anterior chamber may be shallow, the pupil sluggish and dilated. This variety can only be diagnosed by ophthalmoscopic examination; the most important sign is deep excavation

of the optic disc. Increase of tension is present only at intervals, so it may be necessary to test the tension at different times before a decision can be arrived at; but in most of the chronic cases I have seen, increased tension was invariably present, as most of the cases came in a late stage.

The symptoms are gradual diminution of vision and at the same time contraction of the field of vision especially at the nasal side, the latter symptom being given out by only exceptionally intelligent people. This is the variety that is mistaken for cataract. In cataract, the field is not contracted; this is very important, and I request you to remember this. The triad of glaucoma (three objective signs) is the limitation of the field of vision which begins in the majority of cases on the nasal side, the diminution of acuity of vision and the cupping of the disc.

Glaucoma absolutum—In which the eye is blind and as hard as stone. Later on degenerative changes make their appearance in the blinded eye, iris becomes atrophied, lens opaque, haemorrhage in chamber, cornea becomes cloudy, equatorial scleral staphylomata; the final outcome is atrophy of the eyeball; some times ulcer serpens develops with Irido—cyclitis and Panophthalmitis.

Treatment.

Preventive Treatment.—Hypermetropes should always wear correcting glasses to avoid congestion of the ciliary processes by overstrain of accommodation. When a patient complains of headache his refraction should be tested. His distant vision may be 6/5 but there may be latent hypermetropia. Presbyopes should never read or do close work without their glasses.

Col. Elliot points out every means should be taken to prevent loss of vaso-motor control and to avoid the factors that make for the latter and the factors that cause autogenous intoxication; viz., over-work, worry, nervous and bodily exhaustion, improper diet, all depressing conditions, including concealed sources of infection in the teeth as pyorrhœa alveolaris, caries tooth, tonsils, nasal sinuses and intestinal tract. One

should avoid getting mydriatic over 40 unless ophthalmic examination is made beforehand as the mydriatics are as prejudicial in glaucoma as the myotics are useful.

Medical Treatment.—The local treatment is directed to removing the iris from the iridic angle by contracting the pupil. The drugs used are Eserine and Pilocarpine. As a routine treatment, Eserine Salicylas 2 grs to one ounce: one instillation, 2 instillations or 3 instillations as necessary; rarely, even Eserine 3 instillations twice a day, if necessary. In cases where I give more than one instillation, I always close the canaliculi as we all know that eserine has a depressing effect. If the pupil contracts to Eserine, it is a favourable case. It is better that an instillation be given before the patient goes to bed, as at night the pupil dilates. Very often we have heard of patients going to sleep and getting up with a bad headache. Eserine when continued for a time is intolerable on account of the headache it induces and the conjunctival irritation it produces. The routine medicinal treatment on admission in the Madras Ophthalmic Hospital is a purgative of senna and salt, leeches in congestive cases, Eserine drops, Morphia draught or Hypodermic injection, if necessary, unless contraindicated otherwise or Bromide and Morphia for neurotic patients, rest in bed, generous diet. This is only a palliative treatment.

Operative Treatment.—Von Grafe in 1856 employed iridectomy for the first time; before that, cases were allowed to go untreated. This was one of the most pregnant discoveries in Ophthalmology and one which will for all time redound to the glory of Von Grafe as Fuchs says. There have been many operations devised from time to time.

Sclerotomy

Sclerectomy

Lagrange's Operation

Herbert's Operation

Fergus's Operation

Elliot's Operation. Sclero-corneal trephining, the modern universal operation for primary glaucoma.

I will confine myself here to only Sclero-corneal trephining by Elliot, and Iridectomy. The motive of Col. Elliot's operation is to reach, tap, and sub-conjunctivally drain the anterior chamber with the minimum injury to the structures of the eye ball. Primary glaucoma, that is, acute and chronic is as a routine measure done by Elliot's trephining. Before operation we prepare the patient according to Herbert's method, *i. e.*, we give perchloride wash 1 in 3000 to the conjunctiva for 1½ to 2 minutes, as necessary. Hypodermic injection of Morphia, and Cocaine instillation as a rule, but if the eye is very congested, sub-conjunctival injection of Cocaine and Adrenaline is given; if the patient is very nervous, chloroform is administered. A sterilised mask covering the lids and over the face of the patient is a very useful thing during operation. When both the eyes are to be done the eye with a better vision is done first and then the other eye as the patient is invariably nervous for the 2nd eye, but both are done at the same sitting.

The eye is fixed in squeezers by a silk thread run round the lower half of the cornea. Latterly the superior rectus tendon is seized in the grip of a pair of Prince's forceps, as a routine, this is very useful especially in dealing with a brittle conjunctiva. Immediately after operation palpation of the eyeball should show a marked diminution in tension.

Some complications as met with in this S.C. trephine operation.

Button holing or injury to the flap.—A precaution generally adopted is that the flap should not be dragged or roughly handled, especially when the conjunctiva is friable. There is the danger of perforating the flap by any sudden movement of the eye by the patient. The eventual result seems to be as good as no such complication has supervened. If after 24 hours after operation, the conjunctival tear did not heal up, we drop in Sol. Argent. Nitras 3 grs. to 1 oz. or touch it with Sol. Arg. Nit. grs. x to 1 oz. This complication is extremely rare indeed. *Superficial haemorrhage* obscuring the details may be controlled by pressure with small mounted

cotton wool swabs soaked with Adrenalin drops and Adrenalin drops over the sclerals. *Intra-ocular haemorrhage*—this is the most appalling disaster of glaucoma surgery. Nothing remains but to enucleate the eye-ball. *Loss of disc* in the anterior chamber does no harm provided that no focus of sepsis is carried along with the disc.

Loss of Vitreous.—The eye is closed.—In some cases even when the operation has been perfectly performed, the lens becomes cataractous, probably from shifting its position and bearings owing to the relief of tension. The early recurrence of an increase of tension arises from failure to enter the chamber freely, or failure to remove a sufficient piece of disc at the time of operation in which case re-trephining is done. The wound in the sclera may be filled up by the proliferation of inflammatory tissues derived from the episclera or blockage of the aperture by the uveal tissue, lens or vitreous. If it be the uveal tissue, raising the flap without delay and excising it, but this method seems to be difficult as there may be vitreous just behind the iris, so re-trephining is done now-a-days. In gout, there may be raised tension, the patient is advised to have more exercise and diet himself and massage of the eyeball.

The after treatment in Sclero-corneal trephining is instillation of Atropine (4 grs. to 1 oz.) as a routine commenced before the patient leaves the table and continued 1, 2 or 3 instillations until all fear of quiet iritis is past. Rarely, Aspirin 10 grs. B.D. or once a day or Mist. Salicylas or Liq. Hydrargyri is necessary internally when iritis is threatened. When one eye is affected and operated, E 2 may be put in the sound eye as a precaution, as when both eyes are bandaged, dilatation of the pupil is caused and the sound eye may develop glaucoma as there is also mental anxiety attending the operation. In congestive glaucoma, the result of operation is extremely favourable as tension is lowered, pain ceases in a few hours, cornea clears and vision improves. In painful, blind eyes, either S.C. trephining to relieve pain, or enucleation or optico-ciliary neurectomy, but enucleation is far easier than optico-ciliary neurectomy.

In glaucoma due to syphilis—antisyphilitic treatment is given. In hæmorrhagic glaucoma, no operation is done excepting enucleation, owing to the danger of increased hæmorrhage in old people with arterio-sclerosis.

Secondary Glaucoma.—*Prolapse and incarceration of the iris* in perforating ulcer or wound of the cornea: in such cases iridectomy is done. *Complete or partial dislocation of the lens* when lens is removed or paracentesis is done. *Swelling of cataract* after needling for soft cataract, or traumatic cataract requires evacuation by washing or extraction as necessary. *Impaction of a tag of capsule* in section. Capsule is removed or trephining is done. *In high tension eyes with impaction or adhesion of the pillars of the iris* after Smith's expression operation or cataract extraction: trephining is done below old iritis with total posterior synechiæ-iridectomy. *Glaucoma secondary to swelling of lens* especially hypermature cataract as pearly sectored variety and morgagnian cause it; in such cases broad iridectomy or the three cut classical iridectomy is done mostly under ChCl_3 . *Intra-ocular tumour* requires excision of the eyeball. Repeated paracentesis of the anterior chamber is done in irido-cyclitis and couching of lens.

Here a word about massage of the eyeball; it is a very useful treatment both before and after operation, when the tension is keeping high. By this means, an eye can be quickly, painlessly and harmlessly repeatedly reduced, without the intervention of a surgeon, for the patient can learn the manipulation without discomfort.

In Hydrophthalmos or Congenital Glaucoma, S.C. trephining is done.

If any of you desire to make a special study of Glaucoma I would refer to the Text-Book for the Student of Ophthalmology by Lt.-Col. R. H. Elliot [A. K. Lewis & Co., 136, Power Shed, London, S.C.].

NEW LIGHT ON THE CAUSATION AND TREATMENT OF SPRUE

BY

MR. SHIVSHANKER UMEDRAM TRIVEDI, BARODA.

Sir Leonard Rogers has been doing an immense service in the field of tropical medicine. His work in the treatment of cholera and kala-azar are too well known to the medical world to need any description. It seems that the learned doctor has got the rare knack of coaxing nature to divulge her secret. His recent addition to his research is his work in connection with the etiology and the treatment of sprue. The etiology of sprue is still shrouded in mystery, but he believes that he has found the cause of this dread disease in *Streptococcus*. Acting upon this belief, he treated a large number of patients suffering from sprue, in all its stages, with autogenous oral streptococcal vaccine with uniformly good results. The success has strengthened his supposition that sprue is a *Streptococcal infection* originating in the mouth and spreading down the intestinal canal.

Dr. Lucas Nicholis led by the success of Dr. Rogers made further research in this direction. He confirms the work of Dr. Rogers. Not only did he find *Streptococci viridans* in the mouth of patients suffering from sprue, but on post mortem examination of a patient who died of sprue he found a large number of colonies from the tongue, oesophagus, duodenum, ileum, colon, spleen and liver. *Streptococci* can also be isolated from the mouth of a healthy patient, but he meets this contention by showing certain characteristics peculiar to *Streptococci* causing this disease. It is not possible to differentiate the normal from the specific variety under microscope as there is no morphological difference. Dr. Nicholis has therefore employed other tests for their differentiation. These specific streptococci of sprue do not possess a capsule; they are non-hæmolytic; they are not lysed by ox-bile; they do not produce acid from mannite in the serum water of His; and they produce green colonies on blood-agar. He treated some cases in Ceylon, and the results were as satisfactory as those obtained by Sir Leonard Rogers in India. He is so hopeful about the future of this treatment that he says, he knows of no other disease which responds so readily to vaccine treatment.

OUR CONTEMPORARIES.

A SIMPLE OPERATION FOR PILES,

BY

T. H. FOULKES, F.R.C.S., M.R.C.P. (LOND.)
LIEUT.-COLONEL, I.M.S.

MANY methods have been devised for dealing radically with piles, the most favoured in British schools being the operation by ligature and that by the clamp and cautery. Most hospital staffs teach and practise one or other of these two, seldom are both done at any one hospital.

A surgeon who has been educated at a school which teaches the ligature operation, usually practises the same all his working life, and so also with the man who has been taught the clamp and cautery method. Evidently each is satisfied with the results he obtains from the method he uses, and there is therefore nothing remarkable in his constancy to that method. What, however, is remarkable is the hostility shown to the alternative operation. I have often listened with wonder to the spirited discussions I have heard on this subject; and further, it is noticeable how the advocates of these two methods will join forces to attack the free-lance who practises Whitehead's operation.

Bearing this in mind, it is with all due humility that I offer the following description of an operation which I believe to be better than any of those mentioned. Better from the point of view of the surgeon in that it is extremely easy to perform, it is complete and gives entire security. Better also for the patient because he can get about early, and he suffers little or no pain.

During my stay in Aden I have had the opportunity of doing rather a large number of operations for piles, the enervating, hothouse climate being apparently conducive to the development of this condition. The operation about to be described has been performed on my last 58 cases. Sixteen have been done on sepoys, the rest on Jews and Arabs in the civil hospital.

The operation is really that called "Robert Jones's" in Burghard's *Operative Surgery*, varied by the use of a modification of the interlocking ligature I have already described in the *Indian Medical Gazette* in 1912. I wish to make it clear that I am not claiming to describe a "new operation." In this connection I am tempted to recall a remark made by the late Mr. C. B. Lockwood during a clinical lecture on a certain operation: "As regards the incision, Tweedledum makes it vertical and Tweedledee oblique and each calls the operation after himself."

The patient is prepared in the usual way before operation. He is anesthetised and I prefer to operate with the patient in the lithotomy position. The perineum is washed and the anus well swabbed with an antiseptic lotion.

The sphincter is stretched. This need not be done to the extent required for other methods; it is sufficient to stretch until the piles can be easily seen. The anus and rectum are swabbed with an antiseptic and a good sized plug of lint is pushed up the rectum; this prevents the oozing of faeces which sometimes results as the aftermath of the enema.

Each pile is then seized with Spencer Wells forceps and all are drawn down so that the mucous membrane can be inspected to ensure that no piles are overlooked. Selecting one pile, the surgeon holds it up by the Spencer Wells forceps and applies a pair of Kocher forceps to its base in such a way that the whole length of the pile is grasped by the blades of the Kocher forceps which are then clipped. The Spencer Wells forceps are now removed. The surgeon takes the Kocher forceps in his left hand and depresses the handle on the buttock (bearing in mind that a pile *can* be pulled off). In cases with a lax mucous membrane, this will bring the tip of the forceps right out of the rectum, but, in any case, the effect is to raise a ridge of mucous membrane up the rectum from the tip of the forceps. A curved needle armed with not less than a foot of thread is then taken in the right hand and passed deeply through the base of this ridge and pulled half-way

through. The surgeon now leaves go of the Kocher forceps, removes the needle and ties the thread as tightly as he can at its middle. This knot is above the tip of the forceps, *i. e.*, higher up the rectum, and the two halves of the thread now lie one on each side of the pile.

The surgeon again takes the Kocher forceps in his left hand and, with a pair of ligature forceps, he seizes the half thread which lies to his right, while an assistant holds the other half thread up out of the way. The thread should be caught by the ligature forceps at or nearly at its end. It is now pushed through the base of the pile under the Kocher forceps, close enough to touch them and about half-way up the blades. The thread is released and pulled through (the ligature forceps remaining *in situ*), the thread which the assistant holds is put into the grip of the forceps and withdrawn through the same hole. The slack of both threads is pulled in and they are tightly tied together at the lower end of the pile while the assistant slips off the forceps.

There is thus a knot above the pile, another knot below the pile and a crossing of the ligature in the middle, and when the lower knot is tied, it is approximated to the upper one, so that the pile is now drawn into a sphere with a very small pedicle. At first I used to make two crossings, but one is enough for the biggest pile. The pile may now be cut off, slit across or left intact. I usually leave them alone.

Each pile is treated in the same way and if two piles are closed together, fusing, or nearly so, they are tied as one. The ends of the threads are left long until the operation has been completed as they serve to hold down the mucous membrane.

There is very little bleeding, there may be a little from the hole the ligature forceps makes but this stops directly the lower knot is tied.

The plug is removed, the ends of the threads are cut short and a morphia suppository is inserted. No dressing or pad is applied.

A few points in the above description may be enlarged upon.

Any ligature material suits, it need not be very thick but it should not be so thin as to cut the mucous membrane. If catgut is used it must be a long piece, so that a sufficiently tight knot may be tied.

Care is necessary in slipping on the Kocher forceps (by the way any long-bladed forceps will do equally well). The forceps must be applied strictly in the line of the pile, because the ridge of mucous membrane which is raised contains the artery running down to the pile and also the continuation of the vein above and these are included in the first knot. It does not much matter how far the Kocher forceps grip up the rectum, but it is important that they should not grip too low down or the skin will be pinched which will cause pain afterwards. The ligature below is tied as the forceps are slipped off and it should be noticed that any skin which may have been caught by the forceps is allowed to slip away before the first hitch is tightened. Only mucous membrane should be included. It does not matter which pile is tied first as there is so little bleeding even in a congested rectum. It is convenient to stand rather to the right of the patient when tying those on the right side and rather to the left for the left side piles.

On the third evening after operation a dose of castor oil is given and two ounces of olive oil are slowly injected into the rectum and allowed to remain all night. After this a laxative is given daily to keep the motions soft until the ligatures have all come away. The patient is given zinc ointment to insert into the rectum well beyond the anus before and after each motion. If these precautions are not taken there may be some bleeding from the ligature being dragged on prematurely.

The ligatures come away between the fifth and tenth days as a rule, the time depending no doubt on the tightness of the knots and the amount of tissue included in them. Sometimes all have come away by the seventh day.

No orders are given as regards the patients remaining in bed, they are allowed to get up when they like. Arab patients are usually up and walking about on the day after operation. Any restriction with this class of people would certainly be disregarded.

Patients complain of "slight pain" if asked. I have not had the opportunity of performing this operation on a European, so I am not sure just how much pain there is, but the Aden Jews are not a class who make light of their troubles and they have never complained of much pain. It has never caused a sleepless night.

The catheter is usually required once on the first night. There is no tendency to stricture after this operation. The mucous membrane taken up by the ligatures is already a ridge and only the base of this ridge is tied, so the rectum is not materially narrowed:—*The Indian Medical Gazette, April 1919.*

CIRCUMCISION.

BY

W. D. SUTHERLAND, M.D., LIEUT.-COLONEL, I.M.S.

THIS little mutilation is seldom necessary. I have often been requested to circumcise infants, but have not done the operation, for the reasons set forth below:—

What I did do in cases of phimosis and found to be adequate, was to slit the under-surface of the prepuce longitudinally so as to sever the constriction-ring, and then to stitch the ends of the incision to each other so as to make the wound transverse and thus widen the tight part of the prepuce. For some six days after the operation the prepuce is œdematous, but thereafter everything is as before, and the infant, when he grows up, has no cause to complain of the way in which he was treated.

Any adhesions, and these are usually slight, that exist between the under-surface of the prepuce and the glans are easily broken down, and the smegma-laden surface thoroughly cleaned. After the stitches are tied the surfaces are smeared with some bland unguent, so that future manipulations may cause as little pain to the infant as is possible in the circumstances, and the renewal of the adhesions that have been got rid of may be prevented.

Many a mother desires to have her infant circumcised because she has heard, or imagined, that the denudation of the glans has the following advantages:—

Cleanliness.—To me the question as to whether it is more cleanly to remove the secretion of the *glandula odorifera* daily by ablution, or to have it continuously removed by the wearing apparel seems to admit of only one answer, when the points noted below have been considered.

"Bad habits."—I am sure that boys will be boys, whether circumcised or not, and that the removal of the prepuce does not tend to do what the mother hopes it will do.

Protection against disease.—The preputial secretion is a natural unguent which keeps the skin of the parts elastic and lisson. The circumcised glans, on the other hand, has leathery integument, which easily develops a fissure, through which the *treponema pallidum* may enter.

Besides, we have two reasons against the denudation of the glans, that to me, at least, appear to merit consideration. It has not æsthetics in its favour, for if this were the case then we may be sure that artistic Greeks would have seen to it that their statues, which are for all time exponents of the best types of the human form, would show the denuded glans.

As a matter of fact that very primitive contrivance, the intromittent organ, seemed to them to be so far from æsthetically commendable that in their statues they minimised its proportions. Last but not least we have the fact that the delicate sensibility of the parts which nature has in view is blunted by the results of circumcision:—*The Indian Medical Gazette, January 1919.*

THE 8TH ANNIVERSARY MEETING OF THE Gwalior Branch.

This annual function of the Gwalior Branch was held at the Jaya Arogya Hospital on the 6th April 1919, with Major W. G. Nadkarni, Chief Medical Officer and Sanitary Commissioner, Gwalior, in the chair. Among those present were Major W. G. Nadkarni, Chief Medical Officer and Sanitary Commissioner and Patron of the Gwalior Branch, Mrs. G. Stephens, Capt. K. M. Phatak, Drs. Antia, Khirwadhar and Kelkar, Capt. V. C. Moghe, Lts. Persira, Fahimuddinkhan, Alekar, S. K. Abdulkareem, Ante and Durani, Rao Sahib Narayanrao Kanoji, Messrs. Reazuddin, Annaji Vinayak, K. D. Kulkarni, Mukerji, Moghe, Pustake, Gadre, Tilak, Powar, Kothari, Sidhanath-Singh, Shukla, Bhoite, Kadle, Shamatalli, Chunnalal and Seth.

Mr. Reazuddin in proposing the Chairman said :—"The Reception Committee has entrusted to me the pleasant duty of proposing the Chairman of to-day's meeting. As you are aware the Gwalior Branch was opened on the 23rd April 1911, under the guidance of the then Chief Medical Officer Col. D. S. Wagle. His distinguished successor Major W. G. Nadkarni, has been ever since supporting the movement with all his heart and doing every thing possible in furtherance of the interests of our class. Gentlemen, you will therefore, I hope, agree with me if I propose our generous and kind-hearted patron Major W. G. Nadkarni to the Chair. The proposal being duly seconded by Mr. M. D. Pustake was carried unanimously and Major Nadkarni took the chair.

The following is the annual report read by Dr. K. D. Kulkarni, Secretary :—

" Mr. President, Ladies and Gentlemen,

We meet here this evening to celebrate the eighth Anniversary of the Gwalior Branch of the All-India Sub-Assistant Surgeons' Association,

To begin with I have to express deep sorrow for the untimely death of our revered General Secretary Dr. P. S. Ramchandrier. He was the chief organiser of the Association, and through his untiring zeal and energy many a cloud that threatened to enshroud the movement was scattered away. By his death the Association has suffered an irreparable loss, but the appointment of Rai Bahadur Dr. Surjooprasad of Indore in his place gives us hopes of the continuation of the work in the same spirit.

The 13th Annual Conference of the Association was held at Calcutta in January last under the presidency of the Hon'ble Major General W. H. B. Robinson, C. B., I. M. S., Surgeon General with the Government of Bengal. It was largely attended by delegates and members from all parts of India and I had the privilege to represent the Gwalior Branch. On the morning of the 23rd January 1919 His Excellency Lord Ronaldshay, Governor of Bengal was pleased to open the Scientific and Indigenous Drugs Exhibition which was held in connection with the Conference. In addition to the different specimens of indigenous drugs, the Exhibition consisted of products manufactured by local and outside firms. The invalid and bedside articles of the Gwalior Pottery Works formed part of the show. A bromide bust of the late Dr. Ramchandrier kindly finished at my request by Messrs. R. L. Desai Bros. of Lashkar was placed at the entrance, which attracted a large number of members on account of its exact likeness. His Excellency was shown round the Exhibition and he appeared to be much impressed by the general get up. In the course of his reply to the address of welcome His Excellency was pleased to remark, "when I last addressed an audience in this hall, I expressed the hope that we should be able to do something to improve the Sub-Assistant Surgeon's lot. The prospect which I then held out has been fulfilled in the shape of a substantial increase of pay. I shall like to see a course of post-graduate teaching take the place of the periodic grade examinations which you have to submit to under your present conditions of

service. I hope that in future some of you may look to sanitation for a career. Your medical qualifications entitle you to undergo the course which leads up to the Calcutta diploma of public health. And on our part we are fully prepared to provide the necessary course of instruction for those desiring to obtain the public health diploma. Such encouraging words coming from the lips of an administrator of a big province are really very promising and may have their far reaching effect all over India. The Surgeon-General as well as the Sanitary Commissioner with the Government of Bengal in the course of their address spoke in sympathetic terms of the aims and aspirations of our class. On the whole the meetings of the conference which extended over three days proved to be a grand success.

A few important changes in the office bearers were effected in the Conference meetings. Dr. D. V. Venkappa of Madras was appointed as Editor of the Indian Medical Journal, the organ of the Association. A new post of Treasurer was created and conferred on Dr. Rochiram, a private practitioner at Karachi. Amongst the remaining offices, that of Provincial Secretary for Central India and Rajputana was conferred on me.

Turning to our branch, the number of members at the close of the last year was 46. The sad death of Miss Sardabai and the resignation of another member during the year reduced the strength to 44, but the enrolment of 2 new members has again made up the old number.

As regards our scientific work during the year, I am constrained to say that it was very meagre. While some of our military brethren were engaged in active service those of the civil side were none the less busy in waging war against plague and influenza which played a havoc all over the state. Eleven meetings were held during the year of which one was special, held at Sipri on the 28th July 1918 to express our feelings of sorrow for the sad and untimely death of Dr. Ramachandrier. The average attendance at the meetings was about 11 and the papers read were 6 only as given below:—

1. A paper on Anchylostomiasis by S. A. S., Bansore.
2. A paper on Jigger by S. A. S., P. B. Joshi.
- 3 Dilatation of Stomach and its treatment
4. Treatment of Influenza by S. A. S., J. V. Gadre.
- 5 Presence of two lower incisor teeth in a case of a child at birth by S. A. S., Sidhanathsingh.
- 6 A case of acute oedema of the tongue by Hony. Assistant Surgeon Lt. Fahimuddinkhan.

I have to thank here the gentlemen who contributed the above papers. It is hoped that during the next year more papers would be coming in from Sub-Assistant Surgeons of ripe experience who are lucky enough to be in charge of important dispensaries in the state.

Since the commencement of the war 13 of our brethren from Gwalior State served at the different theatres of the gigantic war and acquitted themselves with credit. The Gwalior Durbar appreciated their services by promoting two of them, Lts. Fahimuddinkhan and Krishnarao Gopal Alekar to the honorary rank of Assistant Surgeon and offering them as well as to others cash rewards and medals according to the nature and quality of their work. Lt. N. B. Moghe was one of them, who, I am glad to say, returned from Hospital ship "Loyalty" after a very successful career. The Chief Medical Officer was also pleased to grant accelerated promotions in grade to most of them. Three of the Sub-Assistant Surgeons from the Civil Side—Messrs. Narayan Rao Powar, N.B. Sawarkar & M.D. Fustake who very willingly did a good deal of extra work in connection with the war were presented with robes of honour on the auspicious occasion of His Highness the Maharajah Scindia's last birthday, (11-8-1918).

I would be lacking in my duty, if I failed to express my gratitude to the Durbar for their kindness in promoting me to the post of Personal Assistant to the Chief Medical Officer and Sanitary Commissioner on the same auspicious occasion. Our thanks are due to the Durbar and their Chief Medical Officer for thus appreciating the services of our class and it is to be

hoped that more honours and rewards will be bestowed on deserving persons amongst us.

I have to mention here the name of Mr. Narayanrao Kanoji S. A. S. in charge of the Residency Hospital, Norar, upon whom was conferred the title of Rao Sahib on the occasion of His Gracious Majesty the King Emperor's birthday.

From the promotions and honours conferred on members of our class by the Gwalior Durbar, and the Durbar's keenness for improvement in every branch of their administration we can confidently hope and trust that the day is not far off when the Sub-Assistant Surgeons' service in the state will be a very attractive one. Our worthy patron whom we see in the chair to-day and into whose hands Providence has left our destinies has no doubt done to us several acts of kindness and we hope, has many more in store for us.

Gentlemen, I think I have detained you long, but before I take my seat, I have to thank you all for having graced this occasion and given a patient hearing to what I could place before you by way of a brief report of the branch.

The Chairman Major W. S. Nadkarni then addressed the meeting as follows:-

" Mrs. Stephens and Gentlemen,

Your able Secretary Dr. Kulkarni has just given us a brief narrative of the activities of your Association during the year. The death of your General Secretary, P. S. Ramchandrier was indeed a great loss to your Association and I sincerely sympathise with you on it. Your Annual Conference at Calcutta was, according to all reports a great success. The visit and speech from H. E. the Governor of Bengal was indeed a happy augury. H. E.'s speech holds out great prospects for you in the new line of sanitation and I doubt not the Sub-Assistant Surgeons will take full advantage of this opportunity.

All this is well and good. But what about your work in Gwalior? It is as usual a poor show in spite of every facility given to you. A few Sub-Assistant Surgeons are still reluctant

to join the branch, others never attend the meetings, while only a few record the results of their observations for the benefit of the branch. I think the time has come for improving the status of this branch. If you do not mind, I request my able colleagues Drs. Phatak and Antia to show the way in this matter. The branch may be converted into a local medical union at which all medical and sanitary matters may be discussed. I shall welcome any proposals coming from you in this behalf.

You have been convinced by this time that the Durbar is not slow to appreciate the good services of its servants. The three recent promotions to the grade of Asst. Surgeon, several accelerated promotions and handsome rewards of medals, cash and robes of honour are a sufficient proof of the Durbar's goodwill, if any such proof were needed. But it pains me to point to the increasing number of instances in which Sub-Assistant Surgeons whose education has been paid for by the Durbar, have actually run away when called to duty. Whether the penalty for doing so has been paid or not, the fact still remains that these men have forgotten their moral obligations to the state and have proved themselves entirely unworthy. All the same, I heartily congratulate all the happy recipients of promotions and rewards and hope that there may be many more such recipients in future.

Gentlemen, the great war of modern history has come to an end, but the real peace of mind is yet nowhere in sight. The medical profession, after having had its due share in this terrible war has only come out to fight the ravages of famine and pestilence. The duties and responsibilities of the medical profession are increasing enormously. Nowhere was the shortage of medical men so keenly felt as in India, first when the war broke out and again at the time of the last epidemic of influenza. The growth of an independent medical profession is a pressing necessity. It is therefore our duty to welcome and help every private medical practitioner who may like to come in our midst. I am giving this hint to those in the mofussil

dispensaries who are likely to look upon such new settlers as competitors.

In conclusion, gentlemen, I thank you very much for giving me a patient hearing and I hope and pray that the next year will be still more prosperous to you." (*Cheers*).

Lt. S. K. Abdul Kareem proposed a vote of thanks to the chair which on being duly seconded by Mr. N. B. Moghe, was carried with acclamation, and the meeting terminated with three cheers to His Highness the Maharaja Sahib and the Yuvraj.

Mr. K. D. Kulkarni was then at home to the members and other gentlemen of the gathering.

Major Nadkarni and other guests were then entertained at the rehearsal of a drama (*Taja Wafa*) (Loyalty to the Throne) which was specially arranged by the enthusiastic Sub-Asst. Surgeons, Messrs. N. B. Moghe, B. A. Mukerji, Chunnalal Sarin and a private practitioner Mr. Mukerji. The play was enacted at the Laskhar Town Hall on the 12th April 1919 and the proceeds given away towards the formation of an Ambulance Brigade and such other ambulance activities as the Executive Committee of the Gwalior Centre of the St. John Ambulance Association might direct.

THE 11TH ANNIVERSARY MEETING OF THE CENTRAL INDIA BRANCH, INDORE.

The Eleventh Anniversary of the C. I. Branch was celebrated on 4th January 1919 in the King Edward Hospital Medical School Hall, Indore.

Among those present were the following :—Lt. Col. Sir James Roberts Kt., M.B., F.R.C.S., M.S., C.I.E., I.M.S., late Superintendent of the K. E. H. Medical School, Indore, Dr. Bhandarkar, B.A., L.M. & S., State Surgeon, Indore State, Dr. Deo L.M. & S., Municipal Officer, and Dr. Narulkar, L.M. & S., Asst. Surgeon, M. T. Hospital.

Members from outlying stations :—

Mr. Banyan, Miss. Shinde (Mhow), Messrs. Umraosingh L. Bidwari, Joglekar (Garoth) Shidore (Dewas) Sundarsingh (Neemuch) Rai Sahib Balvantsingh (Dhar). Local members :— Rai Bahadur Dr. Surjuprasad, Assistant Surgeon, Messrs. Vyas, M.A., L.L.B., Sharangpani, Golwelkar, Bhagwat Wayre, Khot, Bidwai, Dighe, Ganesh, Sadashiv, Adharnarayan, Ramsahai, Barve, Deshpande, G. A. Supekar, Jaylekar Phatak, Fanhis, Rinade, Morgainkar, Karambelkar, Puranik, Maganlal, Kagnolkar, Bande, Shamsingh, Patwardhan Gosavi, Kesar, Apte, Deshpande V. R. Atmaram Khandeker, and Professor Raval, M.A., with more than 150 medical students.

Dr. Vyas, M.A., L. L. B. S. A. S. in proposing the Chairman spoke as follows :—

"Ladies and Gentlemen,

It is not for me to acquaint you that we are all assembled here this evening to celebrate the eleventh anniversary of the Central India Branch of our Association, but it is certainly my privilege to-day to raise my voice for electing a person who can fitly preside over our deliberations for the day. You can all guess who that great person can be, an individual unique in his sympathies, profound in his goodness, amiable in his manners and paternal in his relations towards us. As for his abilities, I shall exhibit myself too poor if I attempt to reiterate a catalogue of virtues this gentleman is composed of. An ardent lover of humanity without distinction of creed or race, a thorough student of Surgery and Medicine, a non-pretentious doctor of the eye and an ex-Superintendent of the Medical School in which we meet and whose destinies he controlled for long eleven years, such a man unexpectedly, but to our greatest satisfaction, comes to us to-day to once more embrace and encourage his pupils and breathe hope and energy into the institution which he so loved. Once the Surgeon to a Viceroy of India, this gentleman is now the Civil Surgeon of Simla, he who having rendered faithful and arduous services all his life, has been requested

by the Government of India to stay on due to the exigencies of the war. Such a person we meet to-day.

Put, gentlemen, before we formally elect him to the chair, I beg from you the privilege of giving vent to a few thoughts which are uppermost in my mind. Our association, you have been informed times without number, has been founded with the one object of educating and uplifting socially, materially and intellectually the Sub-Assistant Surgeon class by legitimate or constitutional methods and we are meeting to-day at a unique time not only in the history of our country but also in the history of the world. The great war is just over and our greatest statesmen and politicians are busy with reconstruction problems. It is at this time that right men and right opinions are needed frankly to guide and shape the destinies of all classes of our future race. We are concerned here with our own class alone. In spite of malicious insinuations against us in some quarters, our men have nobly and courageously played their part in all theatres of war ungrudgingly, and it is now the time for the appreciation and reward of their services. It is whispered in our ears that along with other services, the Medical Services are also to be thoroughly reconstructed and new schemes are already before the Government of India. It is well known that our acute grievances are too many and cannot be further tolerated. At such a juncture, it is an insult to our class, which forms the bulk of the medical profession in India, if we are not consulted as to what our difficulties are and how best they can be solved. There is too much *talk* of self-determination every where, though in reality there are evidences of others, determination round us. To have ignored the Sub-Assistant Surgeons at such a movement is not only injuring the dignity of this class but also creating a source of constant friction and permanent dissatisfaction in the medical profession of India. Sub-Assistant Surgeons have begun to speak now, and none can safely pretend to ignore their voice. You are all aware of the memorial of reforms submitted by us last November to the Secretary of State for India and Lord Chelmsford and it is

gratifying to note that the Government of India have accepted it. It must be our sole business now to press our demands without hesitation and see justice done to us. At a time when the ravages of the Great War have just ceased, pestilence still dragging on and famine having increased prices to three times the normal for all necessities of life, it is a misfortune to see that we are still paid the same fixed salaries of Rs. 35 per mensem or it may be in revised scales Rs. 50 per mensem. In the course of a very short time as the result of our incessant agitation we are metamorphosed from Hospital Assistant to Sub-Assistant Surgeon and thence to L. M. P. and now L.C.P. & S. But all these letters followed by the A. B. C. D.'s or X. Y. Zs are worth a broken shell, so long as our social status and educational difficulties remain the same. Our disability to advance further than Sub-Assistant Surgeons is the most painful experience to many of you. To me it is the bitterest and I sometimes begin to curse the day destiny drove me to the Medical School. The recent transference of examining functions of the Medical Schools to a Board situated somewhere in Bombay, little known and less controlled by the School authorities, is another undesirable move in my humble opinion, whatever the School authorities may say on this subject. The examinations are now conducted by a set of medical men who can have little or no knowledge of the whole career of a student and who can be little influenced by considerations of local circumstances. Students returning from there tell us of their special predilections and prejudices, though we may in fairness dismiss such complaints as unworthy and from a section of malcontented and unprepared scholars. The Superintendent of the Schools and the teaching staff have by this move certainly lost all power in their own institutions and they simply depend now on the goodwill of the Board. It is absolutely necessary, looking from the comparatively very poor results in these recent years, that the various schools should also recommend for election as examiners the lecturers on their staff and appoint a more efficient staff than is at present. Then and then only the dignity of the staff can be kept up and better

results expected. Again this examining college could be moved to attempt its amalgamation or affiliation with the Universities so that students passing out from the College of Physicians and Surgeons may be provided facilities for further University training. What I mean is that the Universities should be moved either to accept the examining functions of Medical Schools also or recognise the examinations of the College of Physicians and Surgeons and allow students passing from here in the University course on concession. This alone will satisfy the aspirations of this diffused class. You are again aware, gentlemen, of the recent Sanitary Conference that was held in Delhi and from the Director General Edward's speech you would have learnt that the Sanitary Department of India is also going to be re-organised. It is very disappointing however to note that in a country thirteen times bigger than England, Scotland and Ireland there should be not even 1/10 of the Public Health institutions in Great Britain. But the recent speech forebodes great changes and arouses many expectations, though unfortunately the S. A. S. are not at all mentioned or their place defined at all. In this vast land of the Tropics our men should be freely allowed facilities for the study of Tropical Medicine and interested in higher kind of research work. Such research institutions when they are opened, should be open to Sub-Assistant Surgeons and a fair place should be given to our men in the departments of Bacteriology and Public Health. The question of our pay is the most hackneyed question and since it is unanimously realised both by the Indian Medical Service and the Government of India and is also engaging their attention, I would not say much on the point, but be it remembered that a fair scale should be devised considering our present education, economic conditions and the possibilities of the future, so that no cause of complaint may remain. What is now wanted is more than pious promises, for we have been fed enough on them and remained hungry. The need of the present hour is action, and not lip sympathy as professed by many. And we hope that the administrators will realise their responsibility towards our class so that

we may find no occasion to cry and say "Oh Fathers! Cursed be the day you produced us knowing that you could not provide for us". The Superintendents of the Medical Schools in consultation with prominent members of our class should draw up a scheme for the uplift of our class embodying all our grievances and prescribing suitable remedies for them and present it soon to the Government of India before it is too late and before the reconstruction problems are finally decided.

Then again, gentlemen, asking your apology for having taken your valuable time, I revert to my function of electing the President of to-day and declare that none other than Col. Sir James Roberts C. I. E., is in my opinion a more suitable person to hold the chair this evening and guide us".

In seconding the proposal Dr. Gosavi said :—

"LADIES AND GENTLEMEN,

After all that my friend Dr. Vyas has said, I think I have very little to absorb you in. The most burning problems before us have been enumerated in brief and we meet day after day and year after year for the solution of the same and I believe our ensuing Conference will also take them seriously. The usefulness of our class in peace as well as war, on land as well as sea, in India as well as the fields of war has been amply testified to and it now remains for the powers that be to realise and appreciate our worth. Indore is proud of having sent seven Sub-Assistant Surgeons to the several theatres of war and all of them have returned after satisfying their superiors. As my friend pointed out just now this is a time not for lip-sympathy but for real action. The Indian Medical Service is our absolute mainstay and support as their younger brothers and our elder ones in the profession have in the past, with a few honourable exceptions, presented a more or less hostile attitude towards us and are presenting it even now in some quarters. Though they profess to be in sympathy with us, we find from even small, trifling incidents that they are not really so. We therefore solemnly appeal to them to forget their past attitude and change the "angle of vision" during the

momentous times that are coming. By laying their shoulder to the wheel of reconstruction problems in which they as well as we are supremely interested I think we shall soon be nearer the end we desire. The Indian Medical Service men, the Assistant Surgeons (or better still the graduates of the University) and the Sub-Assistant Surgeons should all tackle the problems of the medical service of the future and the reorganisation of the Public Health Departments of the country. Any class, of these three, remaining aloof either voluntarily or negligently, or kept out compulsorily, will forebode, in my opinion, a constant source of friction for the whole future. I therefore solemnly wish that the All-India Medical Congress and the All-India Sub-Assistant Surgeons' Conference should pass resolutions on these reconstruction problems and jointly work for the uplift of the medical profession in India.

Now let me turn to my main duty of supporting my friend Dr. Vyas in the election of the President. I am indeed fortunate in seconding such a proposal. Who does not know Sir James Roberts and needs to be told about his attainments, virtues and position? An eminent Surgeon, an Englishman by blood but an Indian by heart and adoption, a lover and father of our class and a patron of our branch, can he be less interested in us than any man living? His eleven years experience as the Superintendent of our Medical School and his constant sympathy towards our aspirations have immortalized his name in the annals of our class. I therefore second Dr. Vyas' proposal and request Sir James to take the chair."

Sir James Roberts then took the chair amidst prolonged cheers, and Dr. Khandekar read the annual report which ran as follows:—

"PRESIDENT, LADIES AND GENTLEMEN,

I feel myself honoured in having the privilege of submitting the report of the Central India Branch for the year 1918

I regret we have once more to separate ourselves from the Medical School Social gathering in association with which we

generally celebrate our anniversaries, for the simple reason that we had to take the opportunity of electing Sir James Roberts to preside over the anniversary of our branch which was started by him in 1907. Since then it is steadily making a headway progress, and the success which it has been attaining is solely due to his initial guidance.

On the 15th December 1917, we met in this hall last time to celebrate the tenth anniversary of this branch, under the presidency of Lt. Col. F. A. Smith, whose sound advice from time to time enabled us to cross over many an obstacle, and whom we miss here to-day very much.

At a subsequent meeting, held in the last week of February, new office-bearers were elected for carrying on the work of the branch. Messrs. Sarangapany and Nivsarkar continued to be President and Vice-President respectively. I was elected as Secretary and Treasurer, Mr. Deshpande V. R. as the Joint Secretary and Messrs. Kulkarni, Golvelkar, Apte, Bande, Ranade, Karambelkar and Deshpande as members of the Managing Committee. All these office-bearers helped me much in the activities of this branch last year.

At the last Annual Conference of the All-India Sub-Assistant Surgeons' Association, held at Agra, this branch was represented by Rai Bahadur Dr. Surju Prasad, Drs. Gosavi, and Vyas; and we learn that these have taken a leading part in the discussion of the various subjects of importance. Drs. Vyas and Gosavi were re-elected as Joint General Secretary and Provincial Secretary respectively. In the coming Calcutta Conference of this year, I am elected to represent this branch. Rai Bahadur Dr. Surjuprasad and Dr. Vyas will attend the Conference as member of Standing Committee and Joint General Secretary, respectively and Dr. Nivasarkar as Manager of the Family Fund.

Ramachandra Iyer It is with the greatest grief that on this occasion we have to refer to the loss which the Association has sustained by the demise of our able friend, Dr. P. S. Ramchandra Iyer, General Secretary of the All-India

Sub-Assistant Surgeons' Association. Being associated with the institution from its very inception he led us all these twelve years and showed us the problems we have to contend with. We place on record our sincere sympathy with the bereaved family of the deceased.

On account of personal reasons, I could not attend to my work as Secretary till April, and as Indore was infected with Influenza, engaging the energies of the medical profession as a whole for nearly two months, the branch could be active only for six months. The work of the year has therefore to be judged with due regard to these circumstances. No less than fourteen meetings were however called during the period, the average attendance being always satisfactory and several important scientific subjects and problems involving the material and mental development of the class as a whole having been discussed. The following is a list of a few important subjects discussed in these meetings:—

1. Plague, with lantern demonstration—Mr. S. D. Gosavi:—
2. Research work in Therapeutics and Indigenous drugs. ... Mr. Morgaonkar.
3. Tetanus cases. ... Mr. Phadke, Sehore.
4. Complications of Malaria in Africa ... Lt. Joshi, P. B.
5. Obstructive Policy in Medical Education. Mr. Khandekar.
6. Radium Therapy and cases treated. ... Mr. Patwardhan.
7. Surgical work. ... Mr. Golvelkar.

There was also a meeting specially convened at the end of the epidemic of influenza to discuss the several clinical features of the disease and exchange our views and experiences. The experiences given out were really varied. Some very accurately described their clinical observations, some gave out the bacteriological results, others had an interesting tale about drugs, rest and open air; others again were ready with complications; in short the interesting discussion included every aspect of the disease.

Influenza. It is a matter of pride that Indore did its best in actively fighting against this dreadful scourge and the men of our class ungrudgingly and unselfishly applied themselves to combating the epidemic. They proved too well their worth and usefulness, both to the public and to the Government. We feared if it were not for our exertions the losses, though already great, would have been still greater. By our joint efforts, we were able to eradicate the disease in less than four weeks, time.

The number of members on our roll increased by seven, making 279 in all. We are happy to note that Dr. Surjuprasad obtained on the last New Year's day, the deserving title of Rai Bahadur. An address and an at-home party were given him by the branch in an open air meeting. Equally happy we are to congratulate Mr. Narayan Kanoji on his Rai Sahib title. Messrs. Ramsaha and Phadke, the recipients of Kaisari-hind medals. We are also happy to congratulate Dr. Vyas on his passing his final examination of M. A., & L. L. B., at the same time. We are a bit sorry however to find that the talents of our friend had to seek a freer atmosphere, outside the medical profession, on account of the gates of the higher medical education being closed against Sub-Assistant Surgeons as a class.

Education. The most painful part of our experience arises from our disability to compete for higher examinations in medicine. This is mainly due to the undesirable state of medical education in this country. Our four years training in the Medical School after our Matriculation goes for nothing. When we ask the Universities to open their doors to us, the usual response is "no admission". In some places like Bombay and Calcutta an attempt has been made to facilitate our attaining higher qualifications. But they repeat the old story in point of restrictions. There is no uniformity of courses. Whereas a Sub-Assistant Surgeon can go to England and get his L.R.C.P. and L.R.C.S. in two years, our own colleges and examining boards want us to go through three years additional course for getting the less important M. C. P. and S. As a result of this, the profession

has become less attractive to the younger generation. This point was discussed by our branch in the month of July and was taken up seriously by the United Provinces and Bombay branches and a few articles were also published in the Indian Medical Journal. It is hoped that the Calcutta Conference will be able to solve this question satisfactorily.

War. We are meeting at a very happy time when the world-wide war has come to a successful termination. The several problems of reconstruction including the revision of the Medical Department, are sure to be taken up very soon. We hope that the Government of India will be pleased to take into consideration the valuable services rendered by our class and remove the hardships which our men are now subject to.

Gentlemen, I have done. I thank you for the patient hearing you have given me and resume my seat.

PROCEEDINGS OF THE BRANCH MEETINGS.

BOMBAY BRANCH.

12th January 1919.

13 members present, including the Chairman Mr. Shanker Kanoji. The charge of the Branch Secretary was handed over to Mr. M. D. Joshi.

A. Mr. Y. M. Pradhan, L. C. P. S. demonstrated under microscope the following pathological specimens, (1) Endothelioma, (2) Carcinoma breast, (3) Epithelioma penis, (4) Tubercular glands neck, (5) Mycetoma, (6) Sarcoma, (7) Spindle-celled Sarcoma, (8) Myeloid Sarcoma.

B. Mr. M. D. Joshi demonstrated the following pathological specimens and briefly explained the other features of the case.

(1) Lungs with Tardieu spots in 2 newly born infants. Death due to asphyxia-strangulation.

(2) A rare case of fracture of the parietal bones in a newly born infant due to trauma.

(3) Pyosalpinx with a suppurating cystic tumour and a fibroid in the broad ligament (right side) of a female aged 40 years; cause of death, septicaemia.

(4) Atheroma and calcification at places of the aorta and the cusps of the aortic valves due to syphilitic lesion, antemortem clot going up the aorta; aortic valves incompetent; the man was aged 45, a labourer; died suddenly during work.

C. Mr. N. S. N. Iyer L. C. P. S. showed an X ray print of a case of fracture at the elbow (lower third of humerus and olecranon process of ulna) of 9 years duration: the present condition of the limb unsatisfactory.

D. Mr. C. G. Dhandukia demonstrated a case of non-union of epiphysis of all the bones of the left knee in a man aged 21.

E. Dr. R. A. Kallae was congratulated on his success in the final M. B. B. S. examination and Mr. M. P. Vakil on his getting the title of Rao Sahib.

9th March 1919.

20 members present, including the Chairman Mr. Shanker Kanoji.

Suggestions were taken regarding grievances to be represented before the Medical Services Committee.

A. The following pathological specimens were shown by Mr. M. D. Joshi.

(1) Congenital hydrocephaly in a newborn child; the brain and the meninges occupying $\frac{1}{3}$ of the skull cavity and the rest being filled in by red stained serous exudation.

(2) Syphilitic gummatous deposits on the ascending arch of the aorta; aortic valves incompetent; there was a pouch like dilatation of the aorta at the arch and consequent thinning of the wall—in a male aged 60 years. No calcareous deposit either at the valve or at the aorta.

B. Mr. Y. M. Pradhan, L. C. P. S., showed an X ray plate of the pelvis; the patient an adult male gave a history of injury in the sacral region about 5 years back. After injury the pain lasted only for a week and developed a month later Sciatica on the right side which yielded to treatment. Patient has now Sciatica on the left side. Skiagram did not reveal any abnormality.

Extraordinary meeting held on 20-3-19; 31 members present, including Mr. D. M. Dave, Chairman; Rai Bahadur Surjuprasad the General Secretary and Mr. Lohokare B. A. were thanked for representing the grievances of the class and suggesting reforms before the Medical Services Committee.

Both of them replied in suitable terms exhorting every one present to work for the association. R. B. Surjuprasad moved the following resolution. "That the All-India Sub-Asst. Surgeons' Association has learnt with very great regret the untimely death of Dr. Abdoor Razak J. P., the first President of the Association and offers condolence and sympathy to the bereaved family."

The resolution was unanimously adopted and a copy was communicated to the family.

BURDWAN BRANCH (BENGAL).

7th January 19.

Chairman.—Dr. Sekhar Ch. Samanta. The following office bearers were elected:—

President:—Dr. Amulya Ch. Mitra. *Vice-President*:—Dr. Sekhar Ch. Samanta. *Secretary*:—Dr. Ahi Bhushan Mukherjee. *Treasurer*:—Dr. Satya Charan Moitra.

Nominated Delegates for the Calcutta Conference

10th February 1919. Chairman Dr. Amulya Charan Mitra. Resolutions were passed congratulating the members of the Calcutta Branch for their ungrudging help in making the conference a huge success. Thanks were also given to Dr. Amulya Charan Mitra, President, Burdwan Branch for his magnificent gift to the Conference Fund. There were lively discussions on the Influenza epidemic.

21st. March 1919. Seven members present, including the Chairman Mr. Amulya Charan Mitra. A paper on Hook-worm, its cause, prevention and treatment was read and elaborately discussed by Dr. Amulya Charan Mitra. A paint was suggested for Diptheritic sore throat consisting of Liquor Hydrarg Per Chlor oz: 1 and Glycerine Acid Tanici oz: 1: paint being applied every two hours.

An interesting case of Whooping Cough with convulsion and later on right sided Hemiplegic symptoms with complete Aphasia was read by the President. The case gave history of repeated attacks of malarial fever for the last two months. Injection of Quinine Bi-Hydrochlor with Hyoscine Hydro Bromide reduced the temperature, stopped the convulsion, and the paralytic symptoms gradually disappeared. The child was only 3 years old with no specific history in the family.

A report on the use of Oil Cinnamon as a prophylactic for Influenza sent by the Asansole Mines Board of Health was read.

Dr. Rash Behari Bhowmic discussed some material points on Influenza—its treatment, and management of patients.

An interesting case of Filariasis brought by Dr. Sambhu Nath De of Paraz, was examined by all the members; injection of Soamin and oral administration of Quinine with saline purgatives were advised.

Resolved that a suitable reception be given to Dr. Bentley who will come to Burdwan on the 7th April on his Hook-worm campaign.

With a vote of thanks to the chair the meeting came to a close.

CALCUTTA BRANCH

11th April 1919.

16 members were present, including the chairman, Mr. Judhistir Nath.

Messrs. Judhistir Nath, President—elect of last year, Bimala Charan Gosh, Vice-President, Jatindra Nath Maitra, Secretary, Birendra Nath Ghosh, Joint Secretary, all resigned their respective appointments in view of the new election for the current year:—

The following office bearers were elected for the year 1919:—

President:—Mr. Judhistir Nath, S.A.S., Police Hospital, Alipore Danlanda House, Calcutta. *Vice-President*:—Mr. Atal Behari De, S. A. S., Campbell Hospital, Calcutta. *Secretary and Treasurer*:—Mr. Bimala Charan Ghosh, S.A.S., (Medical College) 50, Nebutala Lane, Bow Bazar, Calcutta. *Joint Secretary*:—Mr. Kaliprosanna Sen, S.A.S., Campbell Hospital, Calcutta.

2. Resolved that the election of another Joint Secretary be postponed till the next meeting.
3. Resolved that the meeting of the branch be held on 1st Sunday of every month at 7 P.M., in the evening and that important discussions of the Agenda be notified beforehand.
4. Resolved and carried that the meeting of the branch Association be held in different parts of the city.
5. Announced that the next meeting will be held in the Campbell Hospital and that a paper on scarlet fever will be read by Dr. Amrita Lal Bhattacharjee, L.M.P.

Mr. Surendra Nath Dutt, S. A. S., just returned from Military Service, pointed out the aims and aspirations of the Association. He was very glad that during his 4 years Military Service he had come in close contact with several Medical Officers, (I.M.S.) of superior rank and service, who all spoke highly about the value and doings of this well organised. All India Sub-Assistant Surgeons' Association. He therefore earnestly requested the members present to take a lively interest in matters concerning this Association. The meeting dissolved with three cheers to the chair.

GWALIOR BRANCH.

2nd February 1919.

8 members present, including the Chairman, Mr. Reazuddin.

Passed the bill of travelling expenses of Mr. K. D. Kulkarni for attending the 13th Annual Conference at Calcutta as a representative of Gwalior Branch.

Resolved that the Gwalior Branch of the All-India Sub-Assistant Surgeons' Association do offer its sincere thanks to the Gwalior Durbar and the Chief Medical Officer for their recognition of the long and meritorious services rendered by Sub-Assistant Surgeons, Lts. Fahimuddinkhan and K. G. Alekar by promoting them to the grade of Honorary Assistant Surgeon on 1st February 1919.

That Lts. Fahimuddinkhan and K. G. Alekar be congratulated on their well merited promotion to the rank of Honorary Assistant Surgeon in the Gwalior State Medical Department.

2nd March 1919.

9 members present, including Lt. Fahimuddinkhan who was in the chair.

The following paper was read and discussed in the meeting:—

A case of acute oedema of the tongue by Lt. Fahimuddinkhan Hon. Asstt Surgeon, Brigade Hospital, Morar.

"Resolved that the 8th anniversary meeting of the Gwalior Branch be held on the 6th April 1919 at the Jaya Arogya Hospital, Laskhar."

"Resolved that Major W. G. Nadkarni, Chief Medical Officer and patron of the Gwalior Branch be requested to preside at the meeting and in case he is unable to do so through some unavoidable circumstances, Captain M. Phatak be requested to take the chair.

A Reception Committee was formed and a programme of the annual meeting settled.

The meeting dispersed with a vote of thanks to the chair.

20th April 1919.

12 members present, including the Chairman, Mr. Reazuddin.

The following office-bearers were elected for the year 1919-20:—

President:—Mr. Reazuddin. Vice-President:—Lt. Fahimuddinkhan. Secretary and Treasurer:—Mr. N. B. Moghe. Joint Secretary:—Lt. Sk. Abdul Kareem. Managing Committee:—Lt. K. N. Alekar, Messrs. S. M. Bede, Rao Saheb Narayanrao Kanoji, J. V. Gadre and B. G. Mukherji.

The question of forming a Medical Union was discussed and it was resolved that the General Secretary be consulted in the matter and his opinion placed before the meeting at its next sitting on 4th May 1919.

The meeting dispersed with a vote of thanks to the chair.

C. I. BRANCH, INDORE.

9th February 1919.

Rai Buhadur Dr. Surjuprasad in chair. 14 members present. Dr. R. K. Desai of Kathiawar, on being requested, gave a full

account of the Calcutta Conference, Drs. Surjooprasad and Khandekar supplementing it. The following Office-bearers were re-elected.

President:—Dr. Sharungpani *Vice-President*:—Dr. Nivsaunkar. *Secretary and Treasurer*:—Dr. Khandekar, L. C. P. & S. *Joint Secretary*:—Dr. Deshpande, V. R. The Managing Committee to be the same as last year with the addition of Khan Bahadur Dr. Ahmadbux, L. C. P. & S.

23rd March 1919.—Dr. Kulkarni B. Y. in chair. 16 members were present. Travelling bill of Dr Khandekar for journey from Indore to Calcutta amounting to Rs. 51-11-6, and anniversary expenses, Rs. 23-2-6 were passed and sanctioned. Paper on Relapsing fever giving detailed information about the epidemic and preventive and curative methods adopted by Dr Morgaonkar personally, was read by him and found greatly interesting. A demonstration of Spirocheti Obermerii, the causal organism of relapsing fever found in the blood of his patients and shown under microscope, also proved equally valuable. A case of relapsing fever from M. T. Hospital was then shown and examined by all.

20th April 1919.—Dr. Morgaonkar in chair; 6 members present. Operative technique of eye surgery was told by Dr. Bapat. A typical picture of Tuberculous joint in early stage as seen under X ray was demonstrated by Dr. Gosavi.

RAJKOT BRANCH.

15th November 1918.

6 members present, including the Chairman, Mr. L. C. Shah. Minutes of the last meeting were read and confirmed.

The following resolutions were passed.

(1) Resolved that Mr Ramanikrai K. Desai be elected as the representative of this Branch at the coming Conference at Calcutta.

After discussing some scientific points the meeting dissolved with a vote of thanks to the chair.

10th January 1919.

11 members present, including the chairman, Mr. L. C. Shah.

PROCEEDINGS OF THE BRANCH MEETINGS

Minutes of the last meeting were read and confirmed. Resolutions of the Madras and Meerut branches and other important letters were read and discussed and the following resolutions were passed to be put before the Calcutta Conference.

(1) Resolved that any of the following be elected as General Secretary.

Drs. Benjamin, Venkappa; Ramnarayanlal and S. S. Vyas.

(2) Resolved that the subscription of the Journal should not be raised to Rs. 5 as proposed by the Meerut Branch, as some of the present members will give up their membership.

(3) Resolved that the Office-bearers of the Association should all be Honorary and not stipendiary.

(4) Resolved that the names of the members of the Association be published in the Journal as before.

(5) Resolved that a suitable memorial be raised to commemorate the name of our late revered General Secretary, that such memorial should be in the form of a scholarship; and subscriptions should be raised from the members and an oil painting be kept in the Head Office.

(6) Resolved that shares of Rs. 10 each, instead of Rs. 25 as proposed by the Meerut branch, be issued in order to raise funds for erecting a building in Delhi for the Head Office and Press of the Association.

(7) Resolved that the Editor should remain in charge of the press and not the organising secretary as proposed by the Meerut Branch.

(8) Resolved that 20% reserved for expenses of the Family fund be reduced to 10% and the remaining 10% benefit given to the members of the Family Fund.

(9) Resolved that a representation be made to the Secretary to Government, Legislative Department for making us eligible to vote for the membership of the Council.

The following Office-bearers were elected for the year 1919:—

President:—Mr. L. C. Shah. *Vice-President*:—Mr. Girjashankar. I. Ozu. *Provincial Secretary*:—Mr. Ramanikrai.

K. Desai, *Secretary*:—Mr. Abdulkadar A. Lohiji, *Joint Secretary*:—Mr. J. D. Jani; and the Managing Committee to be the same as last year.

After discussing some scientific points the meeting dissolved with a vote of thanks to the chair.

8th March 1919.

11 members present, including the Chairman, Mr. Ramnikrai.

Letter from Dr. Sardash Pande was read and discussed and the following resolutions passed.

(1) Resolved that Dr. G. K. Lohoker B. A. of Poona be elected as a representative to give evidence before the Medical Services Reorganisation Committee which will visit Bombay on the 16th instant.

(2) Resolved that the courses of the present Medical schools should be so arranged as to enable the pupils to appear for an examination recognisable by the General Medical Council of the United Kingdom.

(3) There should be two examinations, one equivalent to the present I. M. S. and the other for recruitment to the Provincial Service, the latter to be held in every province as frequently as the exigencies of the service demand.

(4) The members of this class be allowed to appear for all the competitive examinations held for recruiting Medical men for service in India.

(5) Resolved that a Memorial be submitted to the Surgeon-General with the Government of Bombay, with a copy of the above resolutions passed at this meeting.

(6) Resolved that Mr. Ratilal K. Oza be elected as Joint Secretary vice Mr. J. D. Jani transferred.

T. A. Bill of the Conference delegate is passed unanimously and forwarded to the General Secretary for payment.

Some important cases were shown in the West Hospital wards and after some discussion on the matter, the meeting dissolved with a vote of thanks to the chair.

MEERUT BRANCH.

8th February 1919.

8 members present, including the chairman, Mr. S. L. Sharma.

The proceedings of the last meeting were read and confirmed. Dr. Kunj Behari Lal Varma gave a detailed account of the last Provincial and All-India Annual Conferences.

The following resolutions were unanimously passed:—

(1) That the Meerut branch of the All India Sub-Assistant Surgeons' Association do express its heartfelt gratitude to the Inspector General of Civil Hospitals and the Government of the United Provinces for having sanctioned one seat on the U. P. State Board of Medical Examinations for a member of the Sub-Assst. Surgeon class.

2. (a) That the following extract from the letter of Dr. S. L. Sharma to the Hon'ble Col. C. Mactaggart, Inspector General of Civil Hospitals, United Provinces, be circulated for the information of all branches and members of the executive committee in United Provinces.

"I respectfully suggest to you that the appointment of an L. M. P. on the State board would greatly add to its efficiency, safeguard the interests of the class for which it is meant and inspire greater confidence in the public. The Sub-Assistant Surgeons in U. P. are keenly anxious to see their Alma Mater keeping pace with the progress of the medical science."

(b) That the Association is gratified to learn that as suggested by Dr. S. L. Sharma and recommended by the Hon'ble Col. C. Mactaggart, the Government have been pleased to grant one seat on the United Provinces State Board of medical examinations to a member of the S. A. S. class.

(c) That the Government desire us to select three members, out of whom the Government will make their own choice and nominate only one; but unfortunately this particular point, but most vital point, does not appear in the Provincial Secretary's circular, which conveys the impression that three members will be taken on the State Board. That if any branch under such wrong impression has selected three names it should be open to it to reconsider the nomination and make a fresh one. This branch considers it most essential, and recommends it to other

branches also, that *only these three be selected whom the branches consider equally well suited to discharge the responsible and onerous duties.*

(d) The chief aim of the Sub-Assistant Surgeon class which induced Dr. S. L. Sharma to tackle this question, is that the course of the Agra Medical School should be so modified as to satisfy the requirements of the British Medical Act; and it is now our solemn and sacred duty to find out three such men as have mastered these problems of medical education and are capable of working heart and soul to achieve the desired end. The Surgeon General of Bengal has, in his presidential address at the last Annual Conference at Calcutta laid great stress on the fact that the curriculum of medical schools be first modified so as to make our qualifications registrable under the British Medical Act.

(e) That a perusal of the pamphlet on the Agra L.M.S. scheme will give the members a clear idea of how to get our curriculum recognized under the British Medical Act.

3 That the Meerut branch unanimously elects Drs. S. L. Sharma, Kunj Behari Lal Varma and Ram Narain Lal with the respectful recommendation that Government be pleased to nominate Dr. S. L. Sharma who has mastered the problem of medical education and will be the most suitable representative to further the interests of the Sub-Assistant Surgeon class.

4 That the Meerut branch invites the attention of all other branches and the members of the Executive Committee to the importance of a judicious selection of their representatives.

5. That the Provincial Secretary be asked to call a meeting of the executive committee of the Provincial branch at Moradabad in the last week of February to consider the opinions of branches and decide the election of representatives. Branch secretaries may be asked to send the opinion of their respective Branches to the Provincial Secretary by the 20th of February the latest.

6 That Dr. S. L. Sharma and Dr. Kunj Behari Lal Varma be requested to prepare a memorandum of reforms to be introduced in the medical education and in the reorganization of Medical services in India for the guidance of those gentlemen who will appear as witnesses before the Medical Services Reorganization Committee.

7. That Dr. S. L. Sharma and Dr. Kunj Behari Lal Varma be requested to prepare a Memorandum of grievances of Sub-Assistant Surgeons to be urged for the consideration of the Committee through the General Secretary of the All-India Sub-Assistant Surgeons' Association, Indore.

The following office bearers were then unanimously elected for the year 1919.

President :—Dr. S. L. Sharma, L.M.P. *Vice-President* :—Dr. Nasiruddin. *Honorary Secretary* :—Dr. Kunj Behari Lal Varma, L.M.P. *Joint Secretaries* :—Dr. Shuja-at-ullah (Police Hospital) and Dr. Diwan Singh, L.M.P.

A vote of thanks was passed to the outgoing office-bearers.

GENERAL MEETING.

20th February 1919.

4 members present including the Chairman, Mr. S. L. Sharma.

The proceedings of the last meeting were read and confirmed. Passed the T. A. bill of Dr. Kunj Behari Lal Varma, representative at the Calcutta Conference.

GENERAL MEETING

13th March 1919.

5 members present, including the chairman, Mr. S. L. Sharma.

The proceedings of the last meeting were read and confirmed. A paper on Influenza was read by Dr. Kunj Behari Lal Varma followed by a lively discussion. Dr. S. L. Sharma gave an account of his evidence before the Medical Services Reorganization Committee. Dr. Kunj Behari Lal Varma gave a brief account of the resolutions moved by him at the meeting of the U. P. Medical Council held on 1st March, 1919, whereupon it was unanimously resolved that the resolutions should be printed and circulated to all the members of the class in the U. P. as well as elsewhere in India.

Dr. Varma stated that he attended the U. P. Standing Committee Meeting at Moradabad on 21st February 1919, but

did not press the resolutions of the Meerut Branch of the 20th February 1919, as a compromise had been brought about and he did not like there should be any dissensions in the association; this was noted

GENERAL MEETING

29-3-1919

4 members present, including the chairman, Mr. S. L. Sharma.

The proceedings of the last meeting were read and confirmed. A practical and interesting paper on Tuberculosis was read by Dr. Diwan Singh, for which Dr. Kunj Behari Lal Varma thanked him after discussing the pathological and clinical aspects of the disease.

As Dr. S. L. Sharma had already written to the Provincial Secretary about Dr. Zehid Hussain's evidence, etc., it was resolved that no further action be taken at present on Dr. Bankey Lal's circular letter.

It was noted with regret that Dr. Bansi Dhar of Garhmuktesar, for whose sake specially the meeting was called to-day was conspicuous by his absence. The Secretary was advised to inform Dr. Bansi Dhar of the sense of the meeting regarding his absence from the meeting. Dr. Bhagwan Sahai Singh offered to read a paper at the next meeting.

SIND BRANCH

19-1-1919.

5 members present, including the chairman, Mr. Nebhraj.

Minutes of the last meeting were read and confirmed.

1. Read letters from the Secretary of the Karachi Branch about the Sind Provincial Conference to be held at Karachi in the beginning of March 1919. Resolved unanimously that the Hyderabad-Sindh Branch Secretary should be requested to write to all the S. A. S. in the province of Sind calling for their views on the subject and informing them about contributions towards the expenses of the Conference.

2. Resolved that the election of office bearers for the year 1919 be postponed till the next month.

3. The account of this Branch for the half year ending 31st Dec. 1919, was read and passed.

The meeting dissolved with a vote of thanks to the chair.

22nd March 1919.

5 members present, including the chairman, Mr. Chelaram Tilimal.

Minutes of the last meeting were read and confirmed.

1. It was proposed by Mr. Maughanmal and seconded by Mr. Mulchand that a welcome address be given to the Surgeon General with the Government of Bombay on his arrival at H. Sind on the 24-3-1919. Resolved unanimously that a welcome address be made out, typed and given to the Surgeon General with the Government of Bombay on the 25-3-19.

2. The Secretary placed the T. A. bill amounting to Rs. 81-12-0 Eighty one and annas Twelve only of Mr. K. M. Hiranandani for proceeding to Calcutta to attend the last Annual Conference of the All India S. A. S. Association as a delegate. Resolved unanimously that the amount of T. A. bill Rs. 81-12-0 is approved and sent to the General Secretary for payment.

3. The Secretary states that as per Resolution No. 1, dated 19-1-1919 of their Branch postcards were sent to various S. A. Ss in Sind inviting their opinion about holding the Sind Provincial Conference at Karachi in March 1919 as suggested by the Secretary of the Karachi branch. Out of 56 postcards sent, only 7 have been replied to, 2 in favour of the Conference being held at Karachi, 3 in favour of Hyderabad, one to say that the Conference be held in Easter or the next Xmas and the 7th proposing that before such Conference be held a regular list of works, advantages and the real necessity be pointed out by the Secretary of the Karachi Branch. Resolved unanimously that the Secretary of the Karachi Branch be informed of the postponement of the Sind Conference to a distant date.

The meeting dispersed with a vote of thanks to the chair.

Statement of monthly account of the Family Fund for March, 1919.

Income.		Expenditure.	
	Rs. A. P.		Rs. A. P.
Balance on the 1st	... 307 1 9	Purchase of Postal Stamps	... 6 0 0
To deposit by calls	... 891 0 0	Registration charges	... 1 0 0
	1198 1 9	Clerk's pay	... 10 0 0
Nos. 46	2 0 0	Printing charges	... 31 0 0
57.48	17 0 0	Report	... 25 12 0
49.51	44 0 0	Notices for Calls 55—59	5 4 0
52	14 0 0		31 0 0
53.54	75 0 0	T. A. bill of Mr. Nivasarkar for	
55—59	702 0 0	Indore to Calcutta and back	... 91 0 0
Further calls	37 0 0	Deposited in Postal bank	... 650 0 0
	891 0 0	Total	789 0 0
		Balance for next month	... 409 1 9
			1198 1 9

G. A. DESHPANDE, Secretary.	S. G. PATWARDHAN, Manager.	S. N. SHARANGPANI. Director.
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CORRESPONDENCE.

LAY PRESS AND OURSELVES.

THE editor of the "Leader" Allahabad having in an editorial note of the 28th February last suggested to Government the appointment of an Assistant Surgeon for the sub-charge of the Colvin Hospital, Allahabad in place of Sub-Assistant Surgeon Dr. Serajul Hassain, who was to retire shortly, our Associate editor, Dr. Ram Narain Lall of Mussoorie, U.P. made the following reply protesting against the suggestion:—

(To the Editor of the "Leader")

(To the Editor of the *Leader*)

SIR,—Your editorial note regarding Colvin Hospital, Allahabad, in column 3 of the *Leader* of the 28th February, has done great injustice to the class of Sub-Assistant Surgeons and is detrimental to their cause, especially at this juncture when a medical reorganizing committee is sitting to reorganize the whole medical department and the said article has produced a feeling of disappointment in the class and will have a very bad effect in the service. You are probably not aware that Sub-Assistant Surgeons in all other provinces have since long been promoted to the Civil Assistant Surgeons' grade and are working as Civil Surgeons. It is due to public men like you in our province that our progress is retarded. The only prospects open to a Sub-Assistant Surgeon in these provinces are of getting a few outdoor charges of the district hospitals where he can earn enough to educate his children properly and provide for his family some of the most essential comforts of daily life. You are now degrading our class by suggesting to the Government to snatch from us a few of the most important and lucrative charges which we fortunately have so far successfully held. Is it nationalism to stab a man in dark without giving him chance to defend himself? Would you like a Civil Assistant Surgeon promoted from amongst the Sub-Assistant Surgeons to be put in charge of the Colvin Hospital? If not what are your objections to it, for a promoted Sub-Assistant Surgeon will eventually be termed as Civil Assistant Surgeon, the pet name which you so dearly and selfishly revere. If you would like the procedure, have you got any

noted objection in withholding the charge to a man not promoted so far or on the verge of promotion to a higher grade? Has there been any complaint that the efficiency of the hospital has suffered during the time Dr. Siraj-ul-Hassan, a Sub-Assistant Surgeon, has held the charge of the outdoor department? It is an open secret that the reputation of the hospital has been well maintained during his time and he has proved himself a worthy member of a worthy class. I am confident you have not come in contact with the Sub-Assistant Surgeons in general and hence you are quite unacquainted with their abilities and skill in the profession and the respect and regard which the general public have for them. Have you forgotten so soon Dr. Ram Nath Trivedi who was in charge of the Allahabad Eye Hospital? If so the Eye Hospital, Moradabad, run by him will be an eye opener to you and to all others of your thinking. I hope you are also familiar with the name of Dr. Jawahar Lall Rohtogi who is a neighbour to you and commands the first practice at Cawnpur and is a member of the Sub-Assistant Surgeons' class. I will not further enumerate more examples and take the valuable time of the readers of your valuable paper. In the name of justice I would ask whether you would like substitution of L. M. S. Officers, for the sake of efficiency, in place of L.M.S., men, where they are working as Civil Surgeons, if not why not. You are probably dreaming in the atmosphere and the horizon of Allahabad only; otherwise you would not have dared to condemn the whole class of Sub-Assistant Surgeons which is acknowledged by one and all as the back-bone of the medical department. Can you honestly say that not a single Sub-Assistant Surgeon in the whole cadre of 500 in U. P. is efficient enough to hold charge of the outdoor department of the Colvin Hospital, Allahabad? If so the Agra Medical School should at once be closed and endeavours made to bring the medical education in U. P. on a more sound basis. Such things were never expected from a national leader and patriot possessing the skill, ability and knowledge in politics as you do. It looks to me as if you are suffering from the Sub-Assistant Surgeon-phobia ever since the introduction of the Government Resolution on the L. M. S. Scheme, Agra in 1916.

NOTIFICATIONS

Omissions in the Conference Resolutions:—Insert the following as resolution No. 23-A in page 132 of the combined number for March and April. "That the Chairman of the District Board, Dacca be requested to raise the pay of the District Board doctors to the level of that of the Sub-Assistant Surgeons in Government employ as both these are practically the same class of men."

(2) To the list of members of the Standing Committee printed in page 130 of the same number add the name "Dr. Ramnarain Lall, Mussoorie."

(3) Delete the comma between the words "Secretary" and "and" occurring in line 3 of resolution No. 41 and insert the words "and frame a budget for 1919".

Prize for Thesis:—As no one has yet come forward to compete for Rai Bahadur Dr. Sundar Singh's prize (Rs. 40) for the best thesis on *Endometritis* it has been decided to offer the prize for the best thesis on "*How to make Anti-plague inoculation popular*". We hope that the offer will serve as an incentive to a large number of our brethren to bring to play their latent knowledge, thoughts and power of expression.

Burma Medical Council:—Our brethren all over India and Burma will rejoice to learn that Drs. K. N. Menon and K. U. R. Rao of Rangoon have been elected members of the Burma Medical Council. Both these are active members of our Association, the former being the Secretary and the latter the President, of the Rangoon branch. We offer them our hearty congratulations and trust that in this additional sphere of activity they will be able to successfully safeguard and advance the interests of the class from which they hail.

A Sub-Assistant Surgeon M. B., B. S.—We are exceedingly happy to publish for the information of our readers that Dr. R. A. Kallae has come out successful in the M. B. B. S. Examination of the Bombay University. Dr. Kallae is a Sub-Assistant Surgeon in the Bombay Presidency, was

Secretary of the Bombay branch of our Association for a year and represented that branch at the Madras Conference. We congratulate Dr. Kallae on his success and hope that his sympathy for our class will continue to be unabated and that his future career will be one full of promise.

APPRECIATION AND REWARDS.

Dr. Panna Lal Sood, Sub-Assistant Surgeon, Kapurthala Dispensary. The excellent work done by him during the plague and influenza epidemics was acknowledged and appreciated at a public meeting of the residents of Hasanganj, Lucknow under the presidency of Mr. Azar Ali, M. A., L. L. B., and the Inspector-General of Civil Hospitals, United Provinces, requested to permit him to accept the presents offered by Messrs. Rai Behari Lal Bahadur and Ram Dass Mahadeo Pershad.

Dr. Jettmal Manikrai, 1st Grade Sub-Assistant Surgeon Ketri, Karachi Dispensary:—Awarded a silver cup by the Dy. Collector and President of the Katri Municipality in appreciation of the valuable services rendered by this Sub-Assistant Surgeon during the recent influenza epidemic. For similar valuable services rendered on a former occasion—during plague—a “Lungi” was presented to him by a townsman through the President of the Municipality at a meeting of the G. Board.

Dr. K. D. Kulkarni, Sub-Assistant Surgeon, Gwalior State:—Promoted and confirmed in the post of Personal Assistant to the Chief Medical Officer and Sanitary Commissioner, Gwalior State in recognition of his loyal and devoted services to the state for 11 years. He is an active member of our Association and was Secretary of the Gwalior Branch.

Lt. Narayan Balwant Moghe, Sub-Assistant Surgeon, Gwalior State:—Awarded a silver medal and a cash reward of Rs. 300 on the auspicious occasion of the birth-day of His Highness the Maharaja Scindia for good service done while employed on the Hospitalship “Loyalty”.

Dr. Anandlal Girdharlal Shah, Medical Officer, Malia Hatina, Junagadh State:—Awarded a sum of Rs. 150 for having cured Mr. N. S. Gosalia, son of Mr. S. P. Gosalia, Assistant Revenue Officer of Junagadh State, of “Pyæmia” The present was made by the Assistant Revenue Officer at a party of local and mofussil officials and the public.

Dr. G. R. Chawan.—Civil Sub-Assistant Surgeon:—Presented with an Automatic Revolver with 50 rounds of ammunition by his Medical Officer, Lieut. L. J. P. Merdaunt, I.M.S. and O. C. Sec. A No. 168 Ind. Field Ambulance in South Persia. When the whole brigade consisting of 1,500 men, including the Medical staff, was down with Influenza this Sub-Assistant Surgeon worked single handed and treated numerous cases of the epidemic, regardless of his personal safety. The present was for this gallant devotion to duty.

Dr. G. G. Jathar.—Sub-Assistant Surgeon, Bodwad.—At a meeting of the public of Bodwad under the presidency of Mr. E. G. Taylor, I. C. S., this Sub-Assistant Surgeon was presented with a gold medal, a silver watch and a copy of the Manual of Medical Treatment for his meritorious work during the epidemic of Influenza.

Dr. Bhola Dut.—Sub-Assistant Surgeon, Pouri Dispensary, Garhwal District:—At the District Durbar held on the 20th March 1919 was presented a Sanad and Rs. 500 for his specially good work during the epidemic of Influenza and in connection with recruiting.

Dr. N. K. Bhatt.—Sub-Assistant Surgeon, N. M. Petit Dispensary, Khergam:—With the kind permission of the Surgeon-General of the province this Sub-Assistant Surgeon was presented with a Hypodermic syringe, a leather medicine case and a handbag for his invaluable services during the epidemic of Influenza. The presentation was made at a public meeting.

We cannot close the list without making adequate reference to the pathetic end which overtook the unfortunate Dr. Govind

Singh in the faithful discharge of his duty. The tragic fate of this noble soul summons tears in our eyes but our regard for the departed soul demands a full narration of the facts of this mortifying case. Compounder Abdul Rahman of the Amethi dispensary got a severe attack of Typhoid and Dr. Govind Singh, who was then in charge of the dispensary, attended upon him day and night and by skilful treatment succeeded in saving the compounder. But alas ! Dr. Govind Singh himself caught the infection. There was no medical help available in the town and as his condition was becoming critical so quickly he could not be taken to Sultanpur, the nearest station where suitable medical aid could be had. Thus poor Govind Singh perished miserably, a martyr to duty. Posthumous sympathy was however not wanting, for, the Dy. Commissioner of the District, while inspecting the dispensary, recorded the following remarks. "Thakur Govind Singh was rather popular; I trust the new doctor will be equally so. It is commonly believed here that looking after his compounder who was suffering from Typhoid, Thakur Govind Singh himself got the infection and paid the penalty, while the compounder survived. His devotion to duty deserves to be enshrined in the hearts of all of us." Further, the Dy. Commissioner recommended to Government that the poor widow, who had no issue, should be given some pension. By his further exertions and the sympathetic attitude of the Hon'ble Col. C. Mactaggart, Inspector General of Civil Hospitals, the poor widow has been granted a pension of Rs. 25 per month.

While offering our hearty thanks to the Dy. Commissioner, Mr. Navaniti, to Col. Mactaggart and to the local Government for their frank and generous realisation of their moral obligation in such cases and commending this noble example to other local Governments, we desire to urge for the consideration of our benign Government the paramount importance of making suitable arrangements by which on urgent occasions competent medical aid can reach the Sub-Assistant Surgeons toiling in remote and often unfriendly mofussil stations.

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MAY 1919.

[No. 5.]

MATERNITY AND CHILD WELFARE.

Among the various measures designed for the promotion of national strength and well-being nothing is probably more humanitarian in its conception and far reaching in its effects than a well-considered practical scheme for mitigating the unhappy conditions of child-birth among our women and preventing wastage of infant life.

If we examine the origin of the child welfare movement in the west we will find that it is mainly the voluntary efforts of a few philanthropic individuals and associations endowed with a high sense of civic responsibility and sympathy for the suffering women and children. But the terrible carnage at the various battles on land, on sea and in air during the course of the four and a half years of the world-war having practically crippled the manpower and other resources of most of the belligerent countries it became a matter of supreme importance, indispensable necessity, that these states should actively participate in, and even take upon themselves, the management and advancement of these philanthropic institutions. Accordingly we find that in England the State has by means of special legislation arranged for the compulsory registration of all births in view to enable the sanitary officials to visit the mothers and their babies and take such steps as may be necessary

for safe-guarding their health, for the availability of a more efficient class of midwives and for the better feeding of expectant and nursing mothers. The French Parliament, with a view to encourage a higher birth-rate, has promulgated an order whereby a gift of 500 frs. is made for each of the first two living children, 1000 frs. for the third, 2000 frs. for the fourth and 2000 frs. to the father who can present at least four children alive and can assure their maintenance. In Germany, we learn, special grants are made to women who give birth to, and breast-feed their children. Such is the enthusiasm in European countries for the future of their respective peoples.

If the war has denuded the belligerent countries of the flower of their humanity by hundreds of thousands, a catalogue of preventable diseases, mostly due to defective sanitation, ignorance and economic pressure has consumed and is consuming children and adults in India by millions. The suffering and perishing mothers and their innocent little ones have a moral claim upon the society and upon the State for being saved from the remorseless jaws of distress, disease and premature death. When we are told that in Madras the rate of mortality between the ages of 15 and 30 is something like 155 women for every 100 men, that one out of every 40 parturient mothers dies of child-birth and that about 25 per cent. of the children born die before they are a year old while in the cities of Great Britain the rate of maternal mortality is only about an eighth of ours and infant mortality about a fourth, we become painfully conscious of the appalling conditions obtaining in our country. It is true that our birth-rate is comparatively higher than most European countries, but when we bear in mind the terrible wastage of infant life and the havoc

played by those unwelcome, periodic visitors—plague, cholera, influenza, malaria, etc—we will find that the net increase is by no means encouraging. And then there is the incontrovertible fact that out of the children that survive a large percentage grow to be but miserable specimens of humanity more capable of bringing into existence a multitude of physical and mental dwarfs than of contributing to the nation strong and healthy children that can grow to be worthy and useful citizens.

As observed by that great obstetrician, Major-General G. G. Giffard, I.M.S., every child that has arrived in this world must have a fair chance of living to be a healthy individual. But the health and well-being of the child is, as is so well known, largely dependent upon the facilities open to the mother not only for a safe delivery but also for recouping the health which she so ungrudgingly risks in bringing forth the child and for the proper feeding, clothing and housing of herself and her baby. It therefore follows that just as a child must have a fair chance of living to be a healthy individual so also must every mother have a fair chance of a safe delivery. The prosperity of a country is largely the making of its worthy citizens and these again are the making of the mothers, and therefore conditions unfavourable to the well-being of the latter must be removed if the nation should be saved from degeneration and decimation.

What shall we say if we are asked what we have done to check the growing evil? We have only to conceal our face in shame and confess that we have hardly touched even the fringe of the problem. And yet we claim to be the blessed inheritors of a civilisation older than the oldest and of sublime philosophies like those of Buddha, Sankara, Ramanuja and Madhwa. The long

lethargy is somewhat relieved by the occasional outburst of private charity in the shape of endowments to maternity hospitals and similar institutions and by contributions to the press. We are gratified to find that the problem has awakened the interest of some of our sisters in the profession, notably of Dr. S. Muthulakshmi Ammal, M.B. & C.M., Miss L.N. Virasingh, M.B. & C.M., and Miss Thangamma, L.M. & S. In her article entitled "A word about midwives", published in the January number of the Madras Medical Journal, Dr. Muthulakshmi Ammal puts all the iniquities upon the head of the Indian midwives who, she says, are totally ignorant of the elementary things that will be needed for the successful management of labour cases. In support of her poor compliment to Indian midwives she quotes her own extraordinary experiences which the editor of the said journal disposes of as "unfortunate". In our own practice we have had ample opportunities of watching Indian midwives, but have rarely come across such hopelessly irresponsible, incapable and stupid specimens as have been pictured by Dr. Muthulakshmi Ammal, and knowing as we do the nature of the practical and theoretical training given to the now-a-days midwives we cannot subscribe to such a wholesale condemnation. There is however no question that the barber midwives or dais are responsible for much of the unhappiness—often for mortality too—among our women especially because they have absolutely no conception of the most elementary aseptic precautions.

In arriving at a workable scheme the first question to be solved is whether the hereditary dai or barber midwife is to be or not to be. If she is not to be we have to face the problem of replacing her by a better kind of midwife. In what are classed as cities and towns there may not be

much difficulty. But there is a rural population of something like 35 millions with about a million births per annum or annual birth-rate of about 32 per mile. To provide for the assistance of competent midwives in all these would amount to nothing short of a mobilisation and training of a large army of midwives, which on the face of it is inconceivable and impracticable. We have therefore to direct our attention to the improvement of the indigenous, hereditary class of midwives. The task is of course an uphill one. A large majority of them are either illiterate or too old to learn or both. Some may be unwilling to be taught and even if taught may prove to be no better after training than before. Some others may find it a great hardship to leave their home, though only temporarily, for the sake of their training. Therefore, as a small beginning, a class for the training of indigenous dais in midwifery may be opened at every district head-quarters, provided there are not less than 15 pupils from the district willing to join the class. The training should be free and the pupils should be allowed a monthly stipend adequate to meet the cost of their boarding and lodging. They should also be assured that their training at the public cost does not impose upon them any obligation to serve under Government or other public body and that they are quite free to practise the profession anywhere they please, whether in their own villages or elsewhere. Itinerating officers of the Revenue, Medical and Sanitary departments should explain to these women the advantages sought to be secured for the public. The course of instruction should be simple, such as can be easily followed by the average pupil of the class, something like First Aid in midwifery. The response will of course be poor in the beginning, but in course of time as pupils

complete their training and return to their villages their example is sure to be followed by others of their class. At the head-quarters of each district there should be a maternity home for parturient mothers of the indigent classes. All this means a good deal of money. Where is that to come from? The Districts may not be in a position to take up the burden in the face of the already numerous demands upon its slender resources. There should be a reasonable division of the burden between the State and the District Board on one side and the public on the other. The cost of training, boarding and lodging of the midwife pupils may be undertaken by the District Board, the cost of constructing maternity homes may be met partly from public contributions and partly from Government grants and the maintenance of the homes borne entirely by the State.

The success of a scheme of this kind would largely depend upon the hearty co-operation of the medical profession and the public and the State. Any of these agencies limping or proceeding half-heartedly will be a clog to the progress of this highly philanthropic movement. Let us therefore be up and doing.



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SCURVY

BY

MR. JIWAN LAL, Sub-Assistant Surgeon, Punjab.

SCURVY is a constitutional disease caused chiefly by insanitary surroundings and errors in diet and characterised by anæmia, debility, spongy and swollen gums, hæmorrhages under the skin and muscles, pain in the joints, and limbs and prostration. It has been often known as a calamity of sailors and scourge of soldiers, as these are the two people in whom it is most common on account of there being a difficulty of supplying them with fresh food and vegetables.

This disease is not a new one, but has been known from the earliest times and has prevailed in armies in the field and sailors on long voyages. It is very seldom that we come across this disease in civil populations, and I may confess that I at least have never met a typical case of Scurvy, leaving aside some isolated cases of Pyorrhoea, in my 12 or 13 years of medical life, before I joined this war hospital, and I hope most of you will also concur with me.

There are two kinds of causes for this disease—(1) Predisposing and (2) Exciting. (1) *Predisposing causes*—Insanitary surroundings, i.e., overcrowding, living in dirty and marshy lands as in trenches where no open air can reach, and ill-ventilated quarters, cold and fatigue, and mental depression.

Read before the Karachi branch of the Association.

I think mental depression plays an important part in this disease, and by statistics it is proved that this disease springs up more rapidly in armies while in fatigue and retreating. (2) *Exciting causes* are the diet errors, *i.e.*, prolonged exclusion of fresh food, especially of vegetables and fruits in the dietary. This is the only drawback, for which our soldiers suffer, and it is a most difficult problem to combat with. Every possible effort is made to avert this trouble, but circumstances collect together and cause it. Many a time Medical Commissions sat to consider the means by which this dreadful disease might be prevented; and in some cases such as of sailors, the statistics show that this disease is rare where there is an adequate allowance of lemonades and vinegar in rations.

We all know that the predisposing causes are present at the active service and they are mostly unavoidable. All possible precautions are taken, but they are ineffective against cold, fatigue and mental depression. About the diet, it is said that it is quite ample but wanting in quality and constituency. There are various theories about the diet causes of Scurvy. Some say that it is due to want of certain ingredients (vitamines) in the food which are supplied by vegetables, but it is not definitely determined what those ingredients are; some suppose that it is due to the absence of potassium salts; others believe that the essential factor is the organic salts present in fruits and vegetables. But Ralfe who has made a minute study of the subject is of opinion that this disease is due to absence from food of Malates, Citrates and Lactates which reduce the alkalinity of blood, which depends upon Carbonates, directly derived from these salts. It is evident from his remarks that he is not the admirer of pure vegetable theory, but of exclusion of fresh food, be that milk, meat, or vegetables, from which these salts may be derived which may fill up the deficiency of blood. I take this theory to be a possible one and quote examples in support of it.

Babies who live exclusively on milk diet and take nothing but fresh milk either from their mothers' breasts or from cows

and other milking animals, don't get this disease, while those who are artificially fed, not with fresh cow's or other animal's milk but on artificially prepared foods, get this disease or its equivalent, Rickets, another food-error disease. Dyspeptics who are advised to abstain from taking vegetables live quite well on fresh meat and milk diet. Again, people in the Arctic Zone, *i.e.*, New Zealand, &c., where no vegetables grow, live exclusively on the fresh meat of bears, &c., and don't get Scurvy. From these and several other similar instances we can conclude that *Scurvy is not caused by the absence of vegetables only in diet but by lack of vitamins of the fresh food and that fresh food may mean fresh milk, fresh meat, or fresh vegetables, from which carbonates are derived to keep our blood normal.*

Another theory about this disease is that it is due to some toxic material in food, some unknown organic poison, the product of decomposition, because the disease has been found to be prevalent among those who being on long voyages and expeditions, cannot have fresh food and have therefore to live on food preserved in tins. Still another theory is, that scurvy is due to some micro-organism, which is not yet found, and in support of it is cited some examples of epidemic scurvy in armies in the field, but this theory has not yet found any wide support.

Symptoms.—I will describe some of the symptoms which I have been able to observe in my patients, returned from overseas expeditions and admitted here for treatment. I base my statement on my observations of the 385 patients admitted in my wards. 86 per cent. described that the onset of the disease was insidious, *i.e.*, gradual; 56 per cent. complained of having the gum trouble first and other troubles (which I will enumerate below) afterwards; 15 per cent. of the patients stated that their complaint started with smarting pains in joints, especially in the ankles and knees; while 20 per cent. of the cases said that they felt their calf muscles becoming more solid and their limbs heavy and got other symptoms afterwards. A

small minority, about 5 per cent., said that they felt themselves becoming weaker and weaker daily without any apparent cause and their skin assuming a pale colour. Some 2 per cent. of cases stated that the symptoms experienced were like those following brief attacks of fever and dysentery.

From this analysis you will see that in most patients the disease commenced with the gums and teeth trouble and in some with pain in joints and limbs. It is described in text books that in the early stages of scurvy some eruptions are observed. It might be so, but as the cases received by us were all chronic ones we did not see any such signs in our patients, nor did the overseas papers give us any clue about these rashes.

I will now describe some of the chief complaints of a scurvy patient. He feels that he is becoming weaker and weaker daily and unable to walk properly, his gums swollen and spongy, pain in the teeth, salivation, inability to chew his food, in some cases heavy and solid looking legs, painful and swollen joints, ecchymosis at the lower extremities, hæmorrhages from his gums and nose, giddiness of head, breathlessness on exertion, palpitation of heart and so on.

Let us see what changes are produced at the different stages of the disease. First take the gum trouble, as this is the most important one. From simple gingivitis, it ranges to a well formed necrosis of jaw or to so much hypertrophy of the gums that the mass is seen hanging between the lips; at first there is swelling of the gums, which become red, spongy, and bleed on little touch or pressure; there is pyorrhoea, *i. e.*, discharge of pus from the cavity of the teeth, accompanied by a very bad foetid odour; in consequence the teeth become too loose, gums ulcerated and afterwards retracted and there being no support to the teeth, these fall down, leaving cavities full of pus or un-healthy granulations. In severe cases from simple pyorrhoea, true periostitis sets up, and the bone is necrosed. We had one such case of necrosis of jaw, aggravated by a bad attack of scurvy which was successfully operated and cured. In

some cases there are hæmorrhages under the mucous membrane of the mouth and in severe cases glands under the jaw become inflamed. After the subsidence of inflammation, the gums assume a hypertrophied condition.

Joints.—The second important complaint is pain and swelling of joints and muscles which is due to hæmorrhages and effusions occurring between bone and periosteum and in muscles. The more affected joints are ankle and knees and in some cases it is difficult to distinguish these from *arthritis* or from actual rheumatism. Legs and thighs are the common sites where effusions in muscles occur, these become swollen up and stiff as wood and there is a great pain on pressure. In some cases actual stiffening or ankylosis of joints has been seen and in some others the effusion in front of the tibia assumes the character of nodes. In consequence, the patient is unable to get up from his bed or to walk.

Heart.—Palpitation of the heart and feebleness or irregularity of the pulse are also the prominent symptoms. In some cases we observe an interesting phenomenon about the heart which is called postural tachycardia. In these we see that the heart beats slowly while the patient is lying on his back and when the patient gets up from his bed and stands up for a minute, we observe that the heart beats more quickly and the pulse rate is increased by 20 or 40 more beats. A hæmic murmur can usually be heard over the base, and sometimes reduplication of the second sound which denotes the feeble and irhythmic condition of the heart.

Spleen is found enlarged in some cases. There is breathlessness on exertion, though physical signs in lungs are absent. Some patients occasionally get fits of syncope. All the symptoms about the heart enumerated above are purely functional in character and disappear when the patient regains some strength.

When all these changes are developed, the scurvy patient has sallow and bloated look, and, sometimes, the feet and eyelids are oedematous.

Haemorrhages.—Sometimes haemorrhages under the skin occur resembling ecchymosis, after blow, and sometimes the extravasation of blood under the skin gives rise to tension and sloughing, but no such cases have been seen here. Haemorrhages from nose, lungs, stomach, intestines and kidneys do occur, but except epistaxis no such cases have come under my notice. Ankylosis of joints, especially of knee and elbow joints, (probably after haemorrhages in joints and muscles) occurred after the prolonged position in which patients kept their limbs to avoid movements of the affected joints.

Nervous system.—There is often giddiness and mental depression due to the poor condition of blood.

Vision.—Cases of impairment of vision, known as Hamer-
lophia, are not uncommon, and in some cases may be an early symptom. In this condition the patient can see clearly and well in day time, but in dusk or the darkness of night he is quite blind and unable to see his way about. Ophthalmoscope shows no change in the eye and normal sight is restored as the scurvy is cured. One case of partial blindness, as an effect of scurvy, was seen in my ward. Ophthalmoscope, in this case, revealed pigmented choroiditis, probably due to haemorrhage in the choroid.

A case of scurvy.—The following case of scurvy published in the Indian Medical Gazette will be interesting. "A soldier from field service was admitted with swelling of his both calves, sallow and anæmic face, gums pale but not spongy, tongue flabby and coated, nothing abnormal in lungs, abdomen and urine normal; both his calves were swollen and painful, no history of syphilis, malaria or dysentery, no previous flying pains. After being in hospital for 47 days without showing any improvement, he suddenly developed severe pain in the upper abdomen with a weak and rapid pulse, without any previous history of gastric or other abdominal trouble. An enema was ordered and injection of strychnia given, after which the pain became less severe; the pulse however did not improve, but

gradually got worse, until death took place eight hours afterwards. Autopsy was performed and found that pericardium was full of fluid and heart layer coated with fibrine. A small hæmorrhage on the anterior surface of stomach was also seen.'

The diagnosis is very easy in the case of soldiers returning from expeditions or from active service, but isolated cases without any history of field service or of long voyages present a good deal of difficulty. The presence of anæmia, spongy or hypertrophied gums and hæmorrhages under the muscles and joints can clear the doubt. Mere gum troubles cannot justify the verdict of scurvy, because, in the early stages, difficulty arises in distinguishing it from Purpura, but other symptoms and history will define it. Pyorrhoea, Rheumatism, Arthritis, Stomatitis, and Anæmia are the other diseases with which Scurvy is often confounded.

Prognosis is favourable in ordinary cases. Rest, suitable diet, and healthy surroundings cure the patients. Death is rare and is generally confined to severe cases of intercurrent diseases.

As Scurvy is supposed to be a dietetic disease, suitable diet, rest, change of climate and healthy surroundings can bring the patients round. Practically no medicine is ever needed, except when there are some urgent symptoms requiring attention.

The principles of treatment in these cases are:—(1) Prophylactic or preventive (2) Hygienic (3) Dietetic (4) Medicinal or symptomatic.

(1) *Prophylactic treatment.*—In expeditions, sea voyages, jails, famines and in places where vegetables and fruits are scarce, the disease should be combated by procuring fresh vegetables and fruits, where practicable, or by stocking such things as lime juice, orange juice, vinegar, lemonades, tartrates, malates, citrates, or lactates of potassium and, as far as possible, fresh and dried vegetables. Potatoes can be stocked for many months; lime juice or orange juice may be given in 2 oz. doses twice a day in half a tumbler of water sweetened to taste,

and vinegar may be issued in rations with 1 or 2 lemonades daily.

(2) *Hygienic treatment.*—Overcrowding, bad ventilation, damp and fatigue should be avoided, wherever possible; the patients should be kept in well ventilated rooms and allowed to walk freely in gardens or open grounds, and cleanliness of body, clothes and bed should be scrupulously observed.

(3) *Dietetic treatment.*—This is the most important in the treatment of this disease. I have already enumerated in prophylaxis the special articles which are serviceable, some as food and some as medicine. At all events fresh vegetables containing potassium salts such as potatoes, cabbage, carrots, turnips, onions, oranges, lemons, grapes, and, in addition, fresh milk, fresh meat, lime juice and banana may be given. Some physicians allow raw potatoes to be eaten and these may be tried wherever practicable.

For those patients who are too weak to digest these foods, meat juice, lime juice, fresh lemons juice, orange juice or chicken soup or fresh vegetable soup may be prescribed. Patients who are very ill should be carefully nursed and kept in recumbent position in bed, and brandy and eggs allowed if required.

(4) *Medicinal or symptomatic treatment.*—The gums demand particular attention. We have seen that Tinct. Iodine painted over gums, with tonics internally, and suitable diet cure the disease soon. For foetid breath and pyorrhoea carbolic lotion 1/100 and Condys' fluid lotion may be given for gargles; Hydrogen per Oxide, Silver Nitrate grs. x to 1 oz. may be applied over gums. In case of hypertrophied, retracted and painful gums, equal parts of Tinct. Myrrh, Tinct. Iodine, and Tinct. Aconite may be applied. Hæmorrhages from gums can be stopped by astringent gargles, and, if not checked, then by applying Tinct. Steel, Adreniline 1/1000, Cocaine 10 per cent.

For pain in joints and muscles, liniment soap and camphor and liniment chloroform may be given for massage and rest

to the part. For extravasation of blood under the skin and to relieve tension from swelling, an application of a hot mixture of vinegar one part and water two parts is frequently very effective. For weakness, anaemia and other debilitated conditions, there is no need of medicine, as these get cured by dietetic treatment and rest. If required to stimulate digestion and improve the tone of the body, I should recommend the popular Mixt. No. 19 of B. No. 1 I. G. H. Pharmacopea, containing Iron, Arsenic, Gentian and Nux vomica, being given twice a day after meals. For deep and internal hæmorrhages, styptics as Ergot and Calcium Chloride may be tried, and ice sucking or ice applications and local pressure may be advised. Constipation is a troublesome complaint in some patients; for this, simple laxatives, *i.e.*, Castor-oil or Mag-sulph in small doses may be given or rectal douche may be tried. Drastic purgatives should never be prescribed as these set up hæmorrhages from the stomach and intestines. Necrosis of jaw requires surgical treatment. For ankylosis of joints, *i.e.*, fibrous ankylosis, massage and passive motion cure it; if not, then the following process which I have found most useful and rapid in action may be tried. A big piece of lint is put in hot saline lotion, squeezed to draw out extra water, spread around the affected joint and covered with a thick piece of cotton wool and mackintosh to keep the lint warm and then bandaged. I have seen that this gives a speedy relief and the patient enabled to extend his joints in a short time.

Last but not the least, especially in the case of soldiers returning from overseas expeditions, is the psychologic treatment, to relieve their mental depression, by allowing them a reasonable liberty of their pleasures, by arranging for them social entertainments, joyrides, cinema and theatre shows and a short leave to their homes, for change of climate.

TWILIGHT SLEEP.

BY

MR. AMBARAM HARISHANKER JOSHI, BARODA.

TWILIGHT sleep is, it is presumed many of the readers must have known already, the state of narcosis produced by *Scopolaminemorphine*, employed in women for delivery. It appears to be pretty much in vogue in Europe. From the opinions of many eminent members of the profession and considering the few advantages and the many disadvantages attending its use, it would seem as if *Scopolaminemorphine* narcosis is used more for fashion than for any real benefit. The sole object with which this treatment is resorted to, is to cause amnesia or loss of memory, in order to save the woman the recollections of pains and the mental and physical shock of child-birth. I wish to give here the observations and opinions of those who have tried this form of narcosis and leave it to you to take it for what it is worth.

Dr. Gaus supports the use of *Scopolamine morphine* for twilight sleep and asserts that it is neither a cardiac poison nor contraindicated in pulmonary affections. Dr. Greenwood who has recently published a work on this subject is also a supporter of the treatment. Others have observed that the patient under the influence of this drug presents some troublesome symptoms such as congestion of the face, headache lasting for one or two days, intense thirst due to arrest of salivary secretion, restlessness with mental confusion and delirium and, in some cases, even hysterical convulsions. The toxicity of the drug varies with different individuals. In 20 or 30 per cent. of cases the labour duration is prolonged and uterine inertia is produced, necessitating the use of forceps. In a large number of cases the children born are in a state of asphyxia, or oligopnœa. By oligopnœa is meant a condition in which the child, after one or two respirations or even a cry,

appears to be in a state of profound sleep with unaltered heart-beats, the respirations being slow and superficial but interrupted from time to time by a deep inspiratory effort, and if it is kept warm or gently stimulated, it will gradually resume normal breathing. The disadvantages are said to be comparatively many. The treatment demands great care and constant and strict supervision, and more than average obstetric skill on the part of the medical man and want of all these will entail disastrous results. All patients cannot tolerate *Scopolamine*. Many of them show a marked idiosyncrasy to its action and, as we have already said, become restless and delirious; and there are even instances of death from this narcosis. Often, owing to the uterine inertia, the chances of safe and easy delivery are retarded and artificial means have to be employed to produce delivery.

It will be seen from the above remarks that delivery by twilight sleep is not entirely free from danger and women should be made to realise that it is attended with difficulties and dangers both to themselves and to their infants. At a meeting of the Hunterian Society held in March 1918, Dr. Blacker has remarked that twilight sleep delivery requires a considerable amount of experience and obstetric skill to carry it out successfully, and he objects to the frequent use of these drugs by unqualified persons. He says that most of the statements advocating twilight sleep are untrue and, although he has no objection to *Scopolamine morphine narcosis* in proper hands, he has no hesitation in declaring that it is not without risks. This opinion is shared by many competent authorities. Dr. Armand Routh remarks that it is less serviceable in primipara on account of the prolongation of the second stage and production of uterine inertia. It is useful in women who would not otherwise face the pains of childbirth. Dr. Herbert Spencer is of opinion that twilight sleep is a cruel and dangerous fraud on mothers and babies. Instead of deceiving the patient by speaking of painless labour, the honest thing is to tell her that she will feel the pains, but usually will not

remember them afterwards and, to obtain such comfort as these, she will run some extra risk to herself and her child.

The foregoing remarks, made by eminent medical men, lead to the conclusion that the condition of *Scopolamine-morphine narcosis*, known as twilight sleep, is dangerous and unsuitable and that its disadvantages far outweigh its advantages.

MALARIA AND ITS COMPLICATIONS.

BY

P. B. JOSHI, *Lt. S. A. S.*

OF the numerous diseases from which our troops have suffered in East Africa, Malaria is the commonest, as is shown by our two years' record of over three thousand and five hundred cases. The infection in the majority of cases has been very heavy and I have seen cases of relapses of latent fever even after three-weeks course of quinine. From the short experience I had of cases of Malaria I might also point out that benign-tertian parasites were found more frequently than either benign quartan or malignant forms.

As to the different clinical types of Malarial fever or what some men call complications of Malaria, I have come across a few cases of Black-Water fever, Cerebral Malaria, Algide forms and Malarial Cachexia. A few notes on the symptoms and the treatment adopted in these cases are given below.

(1) Black-Water-fever (Haemoglobinuric fever).

Sepoy Murgan, a Madras adult was admitted as a convalescent on 21st December 1916. During his two years stay in this country, he had three attacks of Malaria. A month after his last attack and when he had no fever for over a week, he was sent to this hospital. He had had his one weeks' course of Quinine. His condition on admission:—Spleen palpable, heart normal, complained of weakness. He was given 10 grs. of Quinine that evening and two doses on the following day

in order to carry on the three weeks course which is usually adopted. But in the latter part of the night, the patient began to vomit bilious matter. Early in the morning of 23rd Dec., he found that he was getting rigor and severe head-ache, and the urine he passed was dark. His temperature was 101 deg. F. at 6-30 A.M. and 103 at 8 A.M., pulse was rapid but tension fair. His blood and urine were examined. Result:—Blood-negative for malarial parasites. Urine after 24 hours collection 46 ozs, dark turbid, Sp. Gr. 1020, slightly alkaline, no albumin, but a lot of brown deposit.

Treatment:—Quinine was stopped and a liberal supply of Soda water given in the intervals; he was given "Sodii Bicarb 20 grs, Pot. Bicarb. 20 grs. in 6 ozs. of water, every 3rd hour."

Fortunately the patient began to retain most of the fluids but his urine turned darker still and a yellow tinge began to appear on the sclera. Temperature came down to 100 deg. F. by the evening and he felt some relief. At bed time he was given a powder of: Calomel 3 grs. Sodii Bicarb. 10 grs. followed by Mag. Sulph 6 drs. next morning.

24th Dec.—He passed three liquid motions, urine was clearer and the temperature came down to 98 deg. F., scleral tinge remained the same. The above mixture was repeated every 4th hour, with a good amount of Soda-water. An after-dinner pill (Calomel 1 gr. Podophyl. $\frac{1}{4}$ gr. Euonymin. $\frac{1}{2}$ gr. Ext. Gentian 2 grs.) was given at bed time, followed by Mag. Sulph. 4 drs. next morning.

25th Dec.—There was no Black-water, quantity normal, urine quite alkaline, temperature normal, patient looked anaemic. He was treated for this after-effect with Liq-Arsenicalis and Tinct. Warburg—He was fit after 3 weeks for work. Diet: Patient was kept absolutely on milk diluted with lime water for the first few days.

Remarks: Although I had not very many severe cases of Black-water fever, it gives me great satisfaction to note that this simple treatment has been successful in all my cases,

except one, which was treated with Salvarsan injection. My object in giving the above mixture and a liberal supply of water was to compensate the decreased alkalinity of blood and to assist the process of washing out the haemoglobin infarcts which plug the renal tubules and often bring about suppression of urine.

Cause :—I have not ascertained any particular cause for the onset, but have learnt from the history of such cases that their travelling from a low land to a high one or *vice versa* in their debilitated condition of health, after malaria, had much to account for their symptoms.

(2) Cerebral Malaria :—A Panjabi Sepoy who had suffered malaria was sent to this hospital in his convalescence. One day, while having his luncheon, he suddenly fell on the ground and lost consciousness. He was taken to the ward and attended to. His temp. was 105 deg. F., pulse rapid and feeble, pupils dilated. Temporary convulsions were checked by chloroform inhalation. Cold pads were applied, they had but a temporary effect. Patient remained in a comatose condition for about 36 hours and the temperature did not come down for that period. An enema of soap-water had to be given and rubber catheter used. On his conforming the diagnosis of Cerebral Malaria, I was asked by our Medical Superintendent to inject 40 grs. of Quinine Bi-hydrochlor with 2½ drs. of sterilized water intramuscularly in the gluteal region. Patient came round after 36 hours; when conscious, he complained of dull pain on the injected part and prostration, but he responded marvellously to the drug. He was then treated with tonics and Quinine mixtures and discharged cured after some days.

(3) Algide form-Gastric. Sepoy Gafoor Khan, a Mahomedan adult, was sent as a convalescent after malaria to this hospital. A few days after, he began to complain of severe pain in the epigastrium and frequently vomited, the dejecta being tinged by a few drops of blood. I gave him Soda and Bismuth powders and applied a mustard plaster to the pit of the stomach, but with no effect. Finding that he had some

temperature, I took a blood slide and examined it. The result was positive. (Sub-tertian parasites in the ring stage were detected.) He was promptly given an intra-muscular injection of Quinine Bi-hydrochlorid. 12 grs. Temperature came down and the patient lost his pain. He was given 10 grs. of Quinine sublingually three times a day for a week and had no complaint. (Note: Quinine in the form of powder when kept beneath the tongue and retained there for a few minutes, absorbs readily.)

(4) Malarial Cachexia. These cases take a considerable time for a complete cure to be produced and we do not get the option of keeping them long enough, but have to invalid them.

Before I conclude, I have to acknowledge my great indebtedness to Major C. E. Southon I. M. S., our Medical Supt. for the invaluable instruction he has given me.

OUR CONTEMPORARIES.

THE WASSERMANN REACTION IN SYPHILIS AS A GUIDE TO TREATMENT.

BY W. D. SUTHERLAND, M.D.,
LIEUT.-COLONEL I.M.S.
Imperial Serologist,

AND

RAI GOPAL BHANDRA MITRA BAHADUR, I.M.S.,
ASSISTANT-SURGEON.
Assistant Serologist, Calcutta.

We have thought it to be of service to collate the results obtained by us in 1,498 cases in which a provisional diagnosis of the condition present had been made before the patient's blood was examined for its Wassermann reaction. We are under the impression that syphilitic infection is fairly common amongst those who seek the aid of the public hospitals in Calcutta because amongst 3,800 cases whose W. R. has been ascertained, we have found that the reaction was very strongly

positive in 1,373

strongly	„	437
moderately	„	548
doubtful	„	43
negative	„	1,399

Thus we have 2,358 positive out of 3,800 or 62 per cent.

Taking the 1,498 cases in which our attempt to obtain a history of infection was more or less successful, we found:—

	Positive.	Negative.
History of sore ...	287	46
„ gonorrhœa ...	75	27
„ soft sore ...	15	4
„ bubo alone ...	6	1
No history at all ...	680	357

This, we believe, shows that when the practitioner has any doubt in his mind as to the condition with which he has to deal, he should not give the patient the benefit of the doubt merely because he obtains a negative history from him; nay, we may further say that where a suspicion of lues exists, the patient's social status and consequent presumed immunity from infection should be utterly disregarded for the purpose of diagnosis, whatever the patient may be led to suppose as to the physician's acceptance of his statements.

Should the patient, as often happens, be anxious as to the results of a suspicious coitus, yet present no sign of infection, it is, we think, advisable to have his actual condition ascertained; for out of 103 such cases we found that infection was present in 38, although to all, seeming these men were quite healthy.

The tests were carried out with materials obtained as follows:—The *complement* was fresh guinea-pig serum, of which the dose had been determined by the only trustworthy method of titration, namely that in which the dose of *amboceptor* is kept constant while that of the *complement* is gradually lessened in the series of tubes. As pointed out in Ottenberg,* this ensures that even weakly-positive reactions shall

not escape notice, as they would easily do were the titration carried out by varying the dose of *amboceptor* while keeping that of *complement* at a arbitrarily-fixed quantity. Thrice the minimum hæmolytic dose is taken as the working dose "unit". The *amboceptor* was duly titrated once and for all, and the dose used was twice the minimum hæmolytic dose. The *indicator* was a 5 per cent. suspension of thrice-washed ovine erythrocytes in .85 per cent. salt solution.

The antigens were as follows:—

(a) The Noguchi antigen was prepared strictly in accordance with the directions given at p. 79 of *The Serum Diagnosis of Syphilis*, 1913 edition.

(b) Alcoholic extracts of fetal heart-muscle, prepared thus:—

One part of heart-muscle is ground up with silver sand, and to the paste is added 9 parts by weight of alcohol 95 per cent. The mixture is shaken for an hour, and then left for four days at room temperature, being shaken for an hour each day. The supernatant fluid is then decanted and titrated against at least two known good antigens. As a matter of practice it has been found that 2 c.c. of a 1 in 6 dilution of the antigen is very near the proper dose, which is more accurately fixed by series of tubes in which are put .4, .35, .3, .25, .2, .15, .1 c.c. of the dilution. The dose of antigen should be that, which, after one hour's incubation at 37°C., does not of itself cause any complement-fixation.

(c) An alcoholic extract of fetal heart-muscle (or fetal liver) prepared as above, with the addition of .4 per cent. cholesterol after decantation on the 5th day. Its titration is similar to that of the antigens without cholesterol.

The normal controls were obtained from healthy individuals, the syphilitic controls being made with blood obtained from prostitutes, who were at the time suffering from florid lues.

Much attention is paid to control, at the time of test, of the various ingredients, for we believe that for the observer to be able to say that the test has been accurately made, he must be certain that at the time of its performance *everything* is all that it should be. Mistakes easily occur in any laboratory manoeuvre, unless care be taken. A mistake in technique, when the question of the freedom or otherwise of a patient from syphilitic infection is to be solved, may have very far reaching results on the reputation of the observer, and of the physician who has sought his aid, as well as on the health and wealth of the patient.

The regrettable discrepancies between the findings of various laboratories would, we are sure, be reduced to a minimum, were greater care taken to ensure proper control of all ingredients at the time of test. At present, unfortunately, such cases as the following are not uncommon:—

I. A woman had for some time suffered from pain in the joints and had from time to time eruptions on the skin, but of what kind, no reliable data could be obtained. Her W. R. at laboratory A was found to be absolutely negative. Ordinary anti-rheumatic remedies were employed on the strength of this finding, but no great improvement was obtained. Again her blood was examined, this time at laboratory B, and the W. R. was reported to be strongly positive. That this finding was more in accordance with the actual state of affairs is shown by the immediate relief of all symptoms that followed the adoption of anti-syphilitic treatment.

II. A young woman who suffered from a palmar psoriasis had a negative W. R. at the laboratory D, while laboratory E reported the W. R. to be strongly positive. The eruption cleared up at once under anti-luetic treatment.

III. A man of 50 suffered from excruciating headache. As his W. R. was reported by laboratory F to be 30 per cent. positive, but anti-syphilitic treatment brought about no alleviation of the headache, his blood was sent to laboratory G,

whence an absolutely negative report was received. In spite of this iodide of potassium was given in full doses. He became worse, so at the suggestion of laboratory G his cerebro-spinal fluid was sent for examination. Its reaction was absolutely negative. Later a deep-seated cerebral abscess was diagnosed and evacuated. The headache was at once relieved and did not recur.

IV. A woman had an obstinate skin eruption. Her W. R. was reported to be absolutely negative by laboratory H, but strongly positive by laboratory I, and as a matter of fact the eruption cleared up after a few doses of neosalvarsan, and has not recurred.

Had more care been exercised, the results obtained in both laboratories would have been identical in these cases.

That the history of infection or its absence is not to be relied on appears from the following cases:—

V. A Musalman suffered from a nodular eruption of the skin which did not yield to local treatment. He vigorously and categorically denied that he had ever had a sore or gonorrhœa, or that he had ever exposed himself to infection. But we found his W. R. to be 100 per cent. and the eruption disappeared after two doses of salvarsan.

VI. A man suffered from phimosis—under the prepuce was a large sloughing sore, which, he stated, had existed for nearly six months. His W. R. was found to be 100 per cent. positive. In spite of this it was recommended by a surgeon that the sore should be thoroughly scraped and then treated with peroxide of hydrogen. But after one dose of organic arsenic compound it disappeared within five days.

VII. A young man who denied having had a sore, suffered from ulceration of the skin and double iritis. He was treated by a homeopath but to no avail, and he became practically bed-ridden. His W. R. was found to be 100 per cent. Despite the presence of iritis 6 grains of novarseno-benzol was given and in a week the ulcer had disappeared and he was able to get up.

VIII. A man, who admitted having had gonorrhœa 15 years before, but denied having had any sore on his penis or eruption on his body, was found to have a swelling of the testicle. Castration was advised but as a strongly positive W. R. was obtained, anti-syphilitic treatment was tried and the swelling rapidly subsided.

IX. A woman was suffering from an "ulcerative condition" of the uterus which was suspected to be of malignant origin. As her husband admitted having had syphilis some 20 years before, her blood was sent for examination. The W. R. was found to be strongly positive, and when energetic anti-syphilitic treatment was adopted, the uterine affection soon disappeared.

X. A man suffered from violent hemicrania. His W. R. was found to be 100 per cent. positive; but a medical friend deprecated the accuracy of the test, so anti-syphilitic treatment was not adopted. Soon after his blood had been examined he became hemiplegic, and then anti-syphilitic treatment was begun and pushed, but it was a long time ere he was able to attend to his business-affairs. He is now practically well.

XI. A man denied having ever had any venereal disease. His wife had had repeated abortions at about the sixth month of pregnancy, so her blood was sent for examination. Her W. R. was found to be strongly positive. As she was then in the fourth month of pregnancy she underwent energetic anti-luetic treatment, and was delivered at term of a healthy child. Her husband's W. R. was subsequently found to be strongly positive.

XII. No definite history of infection could be obtained from a man who was suffering from loss of memory, confusion of ideas and weakness of the legs. His physician, however, suspected lues and sent his blood for examination. The W. R. was found to be strongly positive, and treatment with neosalvarsan and mercury soon brought about an amelioration of the man's condition, which at one time threatened to end in dementia.

XIII. A man who had led a very free life, and was addicted to alcohol, was in a condition which his physician suspected to be commencing general paralysis complicated by alcoholism. As the W. R. was strongly positive, anti-syphilitic remedies were given and a great and unexpected improvement was obtained.

XIV. A man who had led a fast life but denied ever having had venereal disease found that his sight was rapidly failing. Optic neuritis was diagnosed. He himself seems to have suspected that syphilis might be the cause, in spite of his former vigorous denials of infection; for he suggested that his blood should be examined, but this was not done till later, when the W. R. was found to be 100 per cent. positive. As his sight by that time was very dim, it was decided to try anti-syphilitic treatment, in spite of its reported risk in cases of nervous disease. After neosalvarsan his sight improved slightly, and the condition remained stationary for the three years during which he was under observation.

XV. A man had recurrent hæmoptysis, with low fever, which did not improve under treatment with tuberculin. His W. R. being found to be 100 per cent. he was given anti-syphilitic remedies, and the fever stopped almost at once. During the year that followed he had no further attack of hæmoptysis, and put on flesh.

XVI. A young woman had suffered from low fever and cough for a long time. No tubercle bacilli in the sputum. As her husband admitted having had a sore on his penis three years before, her W. R. was taken and found to be strongly positive. Anti-syphilitic treatment was pushed and rapid improvement of her condition was obtained.

We believe that every now and then, although the clinical aspects of the case may seem to negative the existence of a luetic taint, this taint, when revealed by a positive W. R., should be admitted and treated.

XVII. An old woman had a nasal tumour. This was held to be malignant although her W. R. was slightly positive. When removed the growth was found to be gummatous.

In such a case a provocative injection of, say, 3 gr. of NAB would go far to turn the scale in favour of lues, if the W. R. were taken on the fifth day after the injection. On the other hand sometimes the W. R. will show that what was *clinically* luetic is not really due to syphilis.

XVIII. A man had periostitis of the ribs, and, as the physician was confident that lues was present, anti-syphilitic remedies were prescribed but the W. R. was found to be absolutely negative, and later the cause of the condition was found to be tubercle.

That a provocative injection, given to clear up a doubtful W. R., may give great satisfaction is shown by the following cases:—

XIX. A man who denied all venereal infection was suffering from weakness of the legs and "neuritis." His W. R. was doubtfully positive, so a provocative injection of NAB was given and the blood again examined. This time the W. R. was strongly positive. Before the report was received by his physician, the loss of power in this man's legs had disappeared as the result of the provocative injection.

XX. A man was suspected to have had syphilis. His daughter suffered from an ulcer in the nose. Her W. R. was positive with a cholesterinised antigen, but negative with other antigens, so was reported to be "doubtful," and a provocative injection was suggested. This was given and then the W. R. was found to be strongly positive with all antigens. The ulcer soon healed under anti-syphilitic treatment.

In conclusion we would note that we have been struck by the number of cases in which the W. R. was not easily and favourably affected by treatment because the physician in charge of the case had pushed organic arsenic compound but neglected mercury as a means of treatment. Organic arsenic compound

alone can do much and mercury can do much alone: but neither organic arsenic compounds nor mercury when given alone can do half as much as the two combined can accomplish. This was pointed out to one of us by Ehrlich in 1911, and the more syphilitics we see the more convinced are we that the fact should be known to all who have to treat them. With diffidence we mention that it seems to us that the best results have been obtained by using mercurial inunctions in preference to intramuscular injections or pills.

PROCEEDINGS OF THE BRANCH MEETINGS.

KARACHI BRANCH.

26th January 1919.

15 Sub-Assistant Surgeons present including the Chairman Dr. Rahiman Khan.

The Secretary read out the application of Dr. Jhamatmal and other private medical practitioners urging reconsideration of the resolution dated the 10th November 1918 approving the Ethical Suggestions of the Bombay Medical Council. The Secretary also explained that the suggestions were approved by all the 27 members present at the meeting held on 10th November 1918 and that some of the present objectors did not attend that meeting in spite of due notice.

Resolution.—Out of the 15 members now present 8 suggest that the application be considered and the following alterations be made in the Ethical Suggestions and the Registrar, Bombay Medical Council addressed accordingly.

(a) That clause (a) of Rule 1 may be altered into "Advertisements in newspapers, handbills, playcards, circulars, etc., in depreciation of other practitioners should be avoided."

(b) That the Registrar, Bombay Medical Council may be requested to explain the term "Secret remedies" and give

about 6 examples of such remedies as mentioned in clause (b) Rule 1.

(c) That clause (g) Rule 1 and Rule 7 may be omitted.

10th February 1919.

61 Sub-Assistant Surgeons were present including the Chairman Dr. Rochiram.

The proceedings of the last meeting were read and confirmed.

The following office-bearers were appointed for the year 1919.

President:—Dr. Rochiram A. Amesur.

Vice-President:—Dr. Mohamed Rahiman Khan.

Honorary Secretary and Treasurer:—Dr. Madhowji Monchhar.

Joint Secretary:—Dr. Dowlatrai H. Jhala.

Members of the Managing Committee.

- | | |
|------------------------|-----------------------|
| 1. Dr. Nihallchand, R. | 6. Dr. R. G. V. Iyer, |
| 2. „ Jhamatmal, P. | 7. „ S. G. Kurlikar, |
| 3. „ R. P. Trivedi, | 8. „ Ashirwadam, |
| 4. „ Balvant Singh, K. | 9. „ Gangaram Chopra, |
| 5. „ V. C. Pillai, | 10. „ Jivanlal. |

Dr. Rochiram gave an account of the Conference held at Calcutta and the meeting then dissolved with a vote of thanks to the Chairman.

23rd February 1919.

39 S. A. Surgeons were present including the Chairman Dr. Rochiram.

The proceedings of the last meeting were read and the confirmation of the office bearers was postponed to the next meeting.

The chairman suggested that a sub-committee be appointed to discuss the questions of the Medical Reorganisation committee.

A sub-committee of the following members was accordingly constituted and requested to attend the meeting on Wednesday the 26th instant.

- | | |
|--------------------------|----------------------|
| 1. Dr. Madhavji Machhar. | 6. Dr. V. C. Pillai. |
| 2. „ Ashirwadam. | 7. „ A. Said. |
| 3. „ Jivanlal. | 8. „ S. G. Kurlikar. |
| 4. „ G. Chokra. | 9. „ V. Iyer. |
| 5. „ M. P. Sexana. | 10. „ Acharija Iyer. |
| 11. Dr. Rochiram. | |

The Travelling allowance bill of Dr. Rochiram for Rs. 87-3-6 was passed for transmission to the General Secretary for payment.

Dr. Rochiram suggested that Government may be moved to grant the S. A. Surgeons the franchise of voting at municipal elections.

Resolved that a petition be submitted to the Government to that effect.

Dr. Rochiram suggested that a Provincial Conference for Sind may be held at Karachi two or three months hence.

Resolved that the opinions of the S. A. Surgeons of various hospitals should be taken before discussing the question of the Provincial Conference.

The meeting dissolved with a vote of thanks to the Chairman.

DEHRA DUN BRANCH.

30th March 1919.

Dr. Ram Narain Lal (in Chair); a short sketch of Calcutta and Benares Conferences was given to the members by Dr. R. N. Lal.

20th April 1919.

Present:—Drs. Bankey Lal (in Chair), Ram Narain Lal Chunni Lal and Kanhaya Lal Gupta.

1. The following office-bearers were elected for the current year:—

President:—Dr. Bankey Lal.

Vice President:—Mrs. L. J. Luke, F.S.A.S.

Secretary:—Dr. Ram Narain Lal.

Joint Secretary:—Dr. Kanhaiya Lal Gupta.

Managing Committee. } Dr. Chuni Lal.
 } „ Samuel Khan.
 } „ Gurditta Mal.

2. Travelling allowance bill of Dr. Bhagwan Sahai Singh, Rai Sahib, the representative of the Dehra Dun branch in the Calcutta Conference was read and passed for rupees fifty and annas five only.

3. Resolved that Khan Sahib Dr. Zahid Hussain be requested to send a copy of his evidence before the Medical Reform Committee for the information of this branch.

3. The meeting dissolved with a vote of thanks to the Chair.

GUZERAT BRANCH.

27th April 1919.

5 members present including the chairman.

The following office-bearers were appointed for the current year:—

President:—Dr. Joseph Benjamin. *Vice-President*:—Dr. Shankerlal K. Vyas. *Secretary*:—Dr. Chunilal T. Behrawalla.

Members of the Managing Committee.

Dr. Popatlal Lullubhai, Dr. Dolutrai Dahyabhai Dr. Dabyabhai Lallubhai Dr. Ajodhyasingh B. Meotilal Mayalal Shah, Jayantilal Jameetram Vyas.

2. Bill of Mr. Chunilal T. Behrawalla, Honorary Secretary of the Gujerat Branch for Rs. 18-15-0 being the expenses incurred on account of postage, printing, etc., during the year 1918 was passed. Passed also the travelling allowance bill of Mr. Jayantilal B. Bhutt, representative of the Guzerat Branch at last annual Conference at Calcutta amounting to Rs. 60 and annas 12.

BADAM BRANCH.

22nd January 1919.

Opening of a new branch: 15 members present. Dr. B. Singh, Civil Surgeon, presiding.

1. The President kindly described the objects of the meeting and of the Association and the branch was then **declared** duly opened (cheers).

2. Dr. N. D. Banerjee (on Hookworm research duty) gave an interesting lecture on Hookworm disease and the methods of examining the stools of the patients microscopically.

3. Dr. Imdad Khan of Bisauli showed ways by which such patients may be induced to come to the Sadar for diagnostic and treatment purposes.

Constitution of the branch:—

1. *President*:—Dr. B. Singh, Civil Surgeon. 2. *Vice-President*:—Dr. N. L. Vaish L. M. S. 3. *Secretary and Treasurer*:—M. B. Mathur (Dr. Jail). 4. *Joint Secretary*:—Dr. N. L. Rescogi L. M. P.

Members.

1. Dr. Nasirullah.
2. Dr. Tulshi Ram.
3. Dr. Nansheyali.
4. Dr. Ajudhia Pershad,
5. Dr. Nalinuddin.

4th March 1919.

6 members present including the chairman, Dr. Sadiq Ali,

1. Resolved to approve the resolution of the managing Committee of the Moradabad branch and to elect Dr. N. S. Zahid Hussain. 2. Dr. Ramnarayan Lal Verma. 3. Dr. S. L. Sharma for the State Board.

2. That the proceedings of the Moradabad branch meeting were not objectionable in any way.

3. That Sub-Assistant Surgeons coming from distant branch dispensaries to Sadar to give evidence before courts have no proper place to sit for sometime, and feel the inconvenience all the more in summer and that therefore the Civil Surgeon may be requested to kindly move the District Board to build one room and furnish it with the necessary furniture.

4. Resolved to bring to the notice of the Civil Surgeon that there are no Pankha arrangements in the Branch dispensaries.

5. The meeting dissolved after thanking the I. G. of C. H. for taking keen interest and upholding our class in general and the S. A. S. on Jail duties in particular.

AGRA BRANCH.

7th January 1919.

8 members present including the Chairman Dr. Chidall.

The following resolutions were passed to be added to the resolutions passed for the annual conference.

1. Resolved that the services of the Sub-Assistant Surgeons in U. P. should, as at present, continue to be Provincial, under the control of the I. G. of Civil Hospitals and should not be transferred to the District Boards as suggested by the Select Committee of the local Legislative Council on Constitutional District Board scheme.

2. Resolved that the local Government be requested to fix the following scale of pay.

4th G. Rs. 60, 3rd G. Rs. 80, 2nd G. 100, 1st G. Rs. 125, 2nd class Senior G. 160 and 1st class Senior G. Rs. 200.

3. Resolved that the local Government be requested that transfers of Sub-Assistant Surgeons may also be published in the Government Gazette of the U. P.

13th February 1919.

11 members present including Dr. Chedall in chair. The following resolutions were passed.

1. Resolved that for State Board examiners the following three names be sent to I. G. of Civil Hospitals, K. B. Zahid Hosain, Ramnath Tirvedi of Moradabad and Daya Nidhan.

2. Passed draft answers to be sent to Dr. Zalid Hosain K. B. for his guidance in giving his evidence before the Medical Reorganisation Committee.

23rd March 1919.

Six members were present,

After discussion of the 3 drafts received from the Provincial Secretary the following resolution was passed.

Resolved that the Provincial Secretary be informed that draft No. 4 duly corrected by this branch be sent to the members of the Medical Reorganisation Committee.

27th April 1919.

Ten members were present.

3 confidential resolutions were passed after discussion.

28th April 1919.

Six members were present.

The following resolutions were passed unanimously.

1. Resolved that a vote of thanks be passed to the local Government through the I. G. of Civil Hospitals, and to the I. G. of Civil Hospitals for the revised scale of pay of the S. A. Surgeons.

2. Passed confidentially.

CORRESPONDENCE.

"DR. RAMACHANDRIER MEMORIAL FUND."

An Appeal.

Dear Brethren,

THE condition of our service prior to the starting of the All India Sub-Assistant Surgeons' Association is well known to you all; but by the will of the All Merciful Father the idea of organising an Association of the Sub-Assistant Surgeon Class primarily came into the head of that noble and selfless soul, the late lamented Dr. P. S. Ramachandrier, who with the help of some other patriotic gentlemen laid its foundation in the year 1906: Since its inception, the privileges and rights which the Association has secured for the class are as follows:—

1. The promotion of the Sub-Assistant Surgeons to the Assistant Surgeon's and Civil Surgeon's grade.
2. Seats in the Provincial Medical Councils
3. Seats on the U. P. State Board of Medical Examinations.
4. The right of granting certificates without counter-signature of Civil Surgeon.
5. The increase of pay in both Civil and Military Classes.

There are many other concessions which are too numerous to mention which have only been obtained through the constant efforts of the Association, and many more still in store for us if we loyally and earnestly support it. The living and promising nations, races, classes, and individuals receive inspiration from the workings and doings of their predecessors and preserve them by raising suitable monuments of their heroes. As our late lamented hero Dr. P. S. Ramachandrier who gave so much of his time, energy and money to uplift the class, has now left us and this material world, we as his grateful and loyal brethren should give effect to the resolution No. 37

of the last Calcutta Conference in which it was resolved to raise a suitable memorial in the shape of a building of the Association at Delhi where the marble bust of Dr. Iyer will be placed in a conspicuous place. No Association should be thought stable unless it has got its own building and press and sufficient funds to support them. So, brethren, get up and gird up your loins and show to the world that you are a living race and can fulfil what you say. The Sub-Committee which lately met at Meerut to draft the scheme has estimated the cost of the building, press, bust, scholarship etc., at Rs. 40,000 and they have fixed the following minimum scale for those Sub-Assistant Surgeons or L. M. Ps. (private practitioners) who are unable to become "Life Members", "Founders" or "Patrons":—

Fourth grade Rs. 15. 3rd and 2nd grades Rs. 25, 1st grade Rs. 30 and Senior grades, Rs. 35, payable in not more than three instalments, at the most, for this noble object.

The Sub-Committee also resolved as follows:—

1. That in the opinion of this Committee, gentlemen paying Rs. 100 should be considered life members and their names should be inscribed in a beautiful marble stone to be fixed in the wall of the hall of the proposed building; and that all life members should receive the Indian Medical Journal free of charge during the whole of their life.

2. That life members should have the right to elect their own representative to the Standing Committee of the Association in the proportion of one representative to every ten life members; the interest of these members in the Association to exist only during their life time.

3. That gentlemen paying Rs. 250 should be called the founders of the Association; their names will also be inscribed in some prominent part of the building. They shall get the Indian Medical Journal free of charge and shall also have the right to the membership of the Standing Committee. Their interest shall exist only during their life time.

4. That gentlemen paying Rs. 500 or more should be called the "Patrons", their names should be inscribed in a marble stone to be fixed on the front walls of the rooms and the rooms to be called after the names of such patrons. They will also get the Journal free and be entitled to the membership of the Standing Committee; not only this, but after them their legal heirs in succession to be the members of the Standing Committee.

5. That no sooner the sum of Rs. 10,000 is collected, the work will be started.

Now, brethren, here is a golden opportunity for you. You can pay according to the above-mentioned scale in three easy instalments. Our well-to-do and senior men should on this occasion come forward to help the Association by becoming life members, founders or patrons as suggested by the sub-committee. In this connection, we want to bring to the notice of our brethren that the U. P. Medical Council has unanimously passed and recommended to the U. P. Government the extension of the course of Medical School, Agra, from four to five years, which in course of time will be extended to other Medical Schools also. After this reform, our Association building will be the nucleus of the great All India Medical Association, and posterity will bless us for this noble act of generosity and patriotism. We pray to Almighty Father to give us strength of will to contribute liberally towards the scheme.

We hope our appeal will not go in vain. All communications in connection with the scheme and remittances of money may kindly be sent to the Secretary (Rai Sahib Dr. Khazan Chand, Central Research Institute, Kasauli, Punjab).

A casualty.

It is with deep regret that we have received the news of the death from carbuncle of Dr. Bateshuari Dayal, Sub-Assistant Surgeon, Police Hospital, Lucknow, the sad event having occurred on the 29th June 1919. We offer our condolences to the bereaved family.

Two more S. A. Ss. promoted to the rank of Civil Asst. Surgeon.

Our brethren all over India and Burma will rejoice at the news of the recent promotion of Sub-Assistant Surgeons, Rao Sahib Dr. A. Gopalan and Dr. G. Bhavanishanker to the rank of Assistant Surgeon. Both these belong to the Madras service and their long and distinguished career eminently entitles them to the position to which they have been promoted. We congratulate them on their promotion and hope that their interest in the class from which they hail will continue.

Grant of Indian Commissioned Rank to Sub-Asst. Surgeons.

It is with immense satisfaction that we publish the following Army Instruction granting Commissioned rank to Sub-Assistant Surgeons in military employment. The reform is of course long overdue, but better late than never. Had it only been granted a few years earlier in the earlier stages of the late war, all the difficulty experienced in the recruitment of Civil Sub-Assistant Surgeons for military duty and the several hard cases of dismissal for non-compliance with the call for military duty could have been considerably minimised, if not altogether obviated. We heartily thank the authorities for the present reform for which our Association has been agitating almost since the outbreak of the late war:—

"With the approval of the Right Hon'ble the Secretary of State for India it has been decided:—

(a) that the rank of Jamadar shall be conferred on Military Sub-Assistant Surgeons on completion of 5 years' service as Warrant Officers:

(b) that second class senior Sub-Assistant Surgeons now ranking as Jamadars shall be classed as Subedars:

(c) that first senior Sub-Assistant Surgeons now ranking as Subedar shall be eligible for the rank of Subedar Major to be granted in special cases of exceptional merit with pay at Rs. 150 per mensem; and

(d) that Senior Sub-Assistant Surgeons with the rank of Subedar Major or, Subedar, who are members of the 1st class order of British India shall be eligible for the honorary rank of Captain or Lieutenant, on retirement under Army regulations, India, Volume II, Paragraph 361.

2. Sanction is also accorded to the grant of Indian commissioned rank, as indicated at (a) and (b) above, to Civil Sub-Assistant Surgeons while in Military Employment. Those who volunteer for general service will, if recommended, be allowed to retain the honorary rank of Jamadar and Subedar when they are released from Military duty.

3. The above measures will have effect from 22nd May 1919."

Birthday Honours

The list of recipients of honours on the occasion of the King's birthday is a fairly long one covering something like six columns of an ordinary Indian daily, but so far as we can see it is only sprinkled with the following ten names of medical men of our class. There are certainly many more of our men who have rendered and are rendering meritorious service to the state and to the people and richly deserve honours. But we are in the land of hopes and let us therefore hope that these will soon have their day. Meanwhile we offer our hearty congratulations to our ten honoured brethren and our thanks to the benign Government:—

Kaiser-i-Hind (silvermedal)—Rao Sahib Dr. U. Rama Rao, medical practitioner, Madras.

Rai Bahadur—Dr. Mohan Lal, Sub-Asst. Surgeon (retired) Baluchistan.

Khan Sahib.—Dr. Mumtaz Ali Khan, Bhatti, Sub-Assistant Surgeon, Indian Medical Department, Bengal establishment.

Rai Sahib.—Drs. Pandir Bholu Dat, Sub-Assistant Surgeon, Pauli dispensary, U. P.; Daulat Ram, Sub-Assistant Surgeon, Burma; Ram Narain, Sub-Assistant Surgeon, Lansdowne Hospital, Udaipur; Madan Lal, Sub-Assistant Surgeon, Jodhpur State; V. A. Bandlikar, Sub-Assistant Surgeon, Sholapur; Shripat Parshram Nium, senior grade Sub-Assistant Surgeon (retired), Bombay; James Benjamin *alias* Yeshwantrao Rowjee Jadhav, Sub-Assistant Surgeon, Indian Medical Department.

Conference Notice.

The fourteenth Annual Conference of the All-India Sub-Assistant Surgeons' Association will be held in the historic city of Poona about the end of the current year. The exact dates and other details will be published in due course. We sincerely thank the Poona branch for the invitation and hope that it will spare no pains to make the next Conference the success it has been in previous years.

The Indian Medical Journal.

Vol. XIII.]

JUNE 1919.

[No. 6.]

THE AGRA L. M. S. SCHEME.

DESPITE the blessings of the Medical Registration Act in India, one great disability under which we have been smarting almost since its introduction is that our diploma is not recognised by the British Medical Council and we are practically viewed by that body as though we were a class of outcastes and 'untouchables.' When we urged and urged for the removal of this anomalous distinction we were told that our standards of general education and the courses of our studies in the Medical Schools varied so considerably that the British Medical Council which had great responsibility to the whole empire would hardly accept newly invented Licensing bodies until it was fully satisfied that these fully and faithfully conformed to the rules and regulations. We therefore diverted our attention to the unification of the preliminary general educational qualification and to the extension of our course of medical studies to five years.

Our efforts have not been altogether in vain. The Government of the United Provinces have in the meanwhile inaugurated a scheme, the essential features of which are:—

The institution of a new degree or diploma carrying with it the title "Licentiate of Medicine and

Surgery, Agra," the normal course of study for the examination being five years and the preliminary educational qualification being the school leaving certificate.

The establishment of a controlling board appointed by Government which will manage the examinations, appoint the examiners, draw up regulations for the diploma and advise Government regarding the course of study and cognate subjects.

The nomination of two private practitioners to the above controlling board, entitled "The United Provinces State Board of Medical Examinations."

In making this somewhat bold move the object of the United Provinces Government is to secure an adequate strength of medical men considerably more efficient than the present L. M. Ps to meet the growing demand for medical relief on Western lines. There is, however, a strong body of medical men fighting tooth and nail against the scheme, the main ground of objection being that it is likely to lower the professional status of those who hold the L. M. S. degree, formerly granted by the Lahore and Calcutta Universities. But as stated by Dr. Kunj Behari Lal Varma the real cause of controversy is the spirit of class distinction. Even supposing that the objection is made in the best of faith it is only sentimental, because the professional status of the objectors can be made quite secure by the insertion of the word 'Agra' after the letters 'L. M. S' in the case of the products of the Agra School. Some contend that the new scheme will entail additional time and expense hardly commensurate with the prospects open to the holders of the new diploma. This is purely a question between the employer and the employee. Whatever it may be, there is no question that the scheme contemplates

better professional training and acquirements and up to date knowledge so necessary in the case of our class which forms the backbone of the Medical Department and which the bulk of the public looks to for medical relief.

Further the improved and extended course of study and the uniform standard of general education will serve as a stepping stone to the recognition and registration of our qualification by the British Medical Council—a consummation which we have been devoutly wishing for all these years.

We congratulate the Government of the United Provinces for the bold and beneficial move they have made and trust that the other Provincial Governments will soon introduce a similar reform in their respective provinces.

INVITATION TO MEDICAL MEN.

"We beg to cancel our war time circulars and invite our customers to take an advantage of further decline in various lines, which comes in force from 1st April of 1919."

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[No. 7.]

SOME OBSERVATIONS ON RESPIRATORY DISEASES.

BY

MR. R. S. VISVANATHA IYER, L. M. P.,
 Madras Medical Dept. I. E. Force "D"

SOME observations on respiratory diseases treated in the wards of an Indian General Hospital in the field may be of interest. The cases were under the treatment of (Indian Medical Service) Officers and almost all had the opinion of the consulting physician Col. Willcox, A.M.S. The bacteriological examination was conducted in the Hospital Laboratory and X ray was taken whenever considered necessary.

Pneumonia:—Cases of Lobar and of Broncho-pneumonia were admitted. Broncho-pneumonia preponderated in the proportion of 25 to 3. Out of 3 cases of Lobar Pneumonia two were diagnosed to be apical varieties and proved fatal in the first week. P. M. Examination verified the diagnosis, the upper lobe being like a mass of liver in both the cases. The patients were highly delirious, with a temperature ranging between 103 and 104. 5 F. Malar flush was marked in these cases and Herpes labia in one. Apical Pneumonia is said to be dangerous from the toxins only and to prove fatal in spite of the almost normal conditions of the unaffected lung and of the major portion of the affected lung itself. The physical damage done to the lungs as a whole is nothing compared to that noticed in Broncho pneumonia. Vaccine is perhaps useful in these cases.

Broncho-pneumonia:—The patients were both young and old and the mortality was higher among the latter. Some of the latter were old Pleurisy cases with extensive adhesions as found by post mortem examination, and, in these, hurried and shallow breathing was very marked; consolidated patches were noticed everywhere, back, front, and sides of both lungs; Cough was harassing and sore throat was common; there was a characteristic grunt. Temperature ranged from 101 to 103, and rarely above 104; pulse rate 120 to 132 and respiration from 24 to 44 and above 50 in serious and dying cases. Vocal resonance and vocal fremitus were increased in areas corresponding to dullness with high pitched rhonchi, rales and crepitations. The treatment consisted of stimulant expectorant mixture, fomentations, stupes and absolute rest. Stimulants such as Brandy and Rum were freely given. Potassium Iodide helped to clear up the lungs in later stages. The patients were on milk diet with mutton or chicken essence, and for some clamorous patients, a little rice or chapathi was allowed without any untoward result. Malaria was a complication in nearly all cases, the temperature seldom coming down to normal without quinine, 30 grains were given for 5 days, 20 grains for another 5 days and 10 grains continued for a week, though some cases manifested Cinchonism.

Microscopical examination of blood showed B. T. rings in some cases. No crescents were noticed. Urobilin was found in the urine of nearly all cases either marked or in traces. Spleen was enlarged in a few cases.

Hepatitis complicated two cases. In one it set in while the patient's lungs were not quite clear and it was considered rather a serious complication. The lower part of the right side of the chest was slightly bulged and full. Liver was tender and palpable below costal margin. The conjunctivae were tinged yellow. Examination of stools showed no amoebae. Temperature ranged between 103 and 104. Emetine injection brought the temperature to normal after the first dose. As it was found by experience in dysentery cases that a dozen

injections of emetine removed all traces of amoebae, even entohystolitic cysts, 12 doses were given (one grain to a dose). When the emetine was stopped the temperature rose again and kept at about 99 for a long time, but the patient was otherwise fit and well.

X Ray Report before emetine injection. "Irregularity of outline of right lobe of liver. Diaphragm does not move freely; probably abscess present."

Three weeks after Emetine was stopped it was reported by the X ray specialist that the liver was normal. Another course of Emetine was tried for the low fever with no good result. The temperature subsided by itself after some time.

In the second case, after a protracted illness for a month with Broncho-pneumonia, pleuritic rub was heard over the right nipple region and below. Liver was tender and chest full on the right side. Examination of stools showed mucus, Trichomonas but no amoebae.

X Ray Report. Right diaphragm barely moved at all and right lobe of liver was irregular and seemed more dome shaped than normal. Liver abscess probably present. Twelve doses of Emetine were given. Though the patient kept up a temperature of 99 or 99.5 in the evening for a long time, he was perfectly fit otherwise. Neither a prolonged trial of Quinine nor Potassium Iodide helped to reduce the temperature. After six weeks the temperature came to normal.

X Ray Report 3 weeks after stopping emetine. "Diaphragm moves freely. Liver appears nearly normal."

Pleurisy:—Dry pleurisy (without effusion) was comparatively rare and the pain was generally relieved by a mustard plaster with Phenacetin and Dover's powder internally. Fomentations were beneficial.

Pleurisy with Effusion:—The temperature kept up a remittent or intermittent type for a prolonged period. Aspiration did not bring it down in nearly all cases. There were

as many cases with blood stained fluid in the chest as there were cases with clear straw coloured effusion. All of them were unilateral. The largest quantity of fluid aspirated was 70 ounces in a case with marked displacement of the heart towards the opposite side and accentuation of the second sound. Breath sounds were distant and sometimes inaudible and the vocal resonance and fremitus impaired. Malaria was frequently associated with it, and in one case the spleen was felt two inches below costal margin with effusion on the left side. Difference of opinion arose whether it was a case of displacement, or enlargement or both. Blood smears showed no malaria parasites, but no importance could be attached to it as the patient had taken a lot of quinine previous to admission. Finally enlargement was pronounced when aspiration failed to manifest any change in the position of the spleen even after 3 weeks. One case was associated with fever and dysentery. Stools examination showed red blood cells, *Ento*hystolitica cysts, *Ankylostoma* ova and *Trichocephalus* dispar. This patient died after a prolonged illness of 3 months and the P. M. Examination showed considerable adhesions in the chest, with some blood stained fluid and a few dysentery ulcers in bowels.

Another case had pericarditis as a complication with marked friction sounds in the heart area and drawing in of the 4th and 5th intercostal space of the left side. 32 ounces of clear straw coloured fluid were aspirated from the left side of the chest. The patient was pale, exhausted, and had a rapid pulse. The pericarditis was of a rheumatic origin. Pleurisy with effusion was noted in a case of ankylostomiasis, with general serous effusions of pericardium and peritoneum. 18 oz. of blood stained serous fluid was found in the pericardium during the P. M. Examination.

Empyema:—Rare as a medical case, though several were seen on the surgical side as gun shot wounds of the chest. The bell sound was elicited with the coin test. The upper part of the chest was bulging and hyper-resonant owing, it was said, to

the formation of gas by anærobic organism. Only exploratory needle definitely settled the diagnosis.

X Ray Report.—"Fluid in chest. No liver abscess."

Resection of the rib was performed and the patient kept up a high temperature, 100 to 104 for about a month, when the case passed out of my notice owing to my transfer. The general condition of the patient was fairly satisfactory.

Tuberculosis of lungs.—A few cases came under my observation for a short period. No notes could be taken as they were evacuated to India soon after T. B. was noticed in sputum.

Asthma.—Rare. Adrenalin solution 1/20 M., hypodermically terminated the spasm in 3 cases.

Ch. Bronchitis and Emphysema were noticed in a case with sonorous rales and loss of hepatic and cardiac dullness. As patients of this class are soon sent away to India as unfit for active service no observations have been recorded about them.

ANKYLOSTOMIASIS.

A paper read by Mr. S. Dakshinamoorthy, L. M. P. at the Secunderabad Branch of the All India S. A. S. Assn.

I am an infant in service and as such I hope you will not expect me to possess much of personal experience. I had the privilege of training under Dr. K. S. Mashkar. It is rather a difficult task to collect statistics in the civil department, except in Jails, but in the military hospitals it is very easy. In a civil hospital the patient is admitted and goes away before he is cured, as the time taken for the cure is very long. That is the very reason why Dr. Mashkar began his investigations in the jail, where people remain for years together under proper control. I had no opportunity of working in any institution where I could gather statistics, and so far as this hospital is concerned my friend, Mr. K. Ramachandran, will

give you some from which you can infer how long the treatment lasts and how difficult it is to effect a cure very successfully. Now, coming to the subject proper, Ankylostomiasis is a disease the chief clinical sign of which is anaemia and the chief cause of which is the hook-worm. We have to bear in mind that it is not every man who is infected with hook-worm who suffers from that disease, which we call ankylostomiasis. If we take the trouble of examining our stools, I think that many of us will be found to have ankylostoma infection, and yet we are not suffering from ankylostomiasis.

The hookworm is very widely spread throughout the world with the exception of a few fortunate parts. There are two kinds of hookworms which are predominant in this country. In our Presidency (Madras), as we go north and north the infection from ankylostoma predominates and in the south, especially Madura and Tinnevely, the infection is mainly *Necator Americanus*.

I will give you a description of the worms:—

(1) *Ankylostoma duodenale*, the male of which is 8 to 11 m. m. long and 4 to 5 m. m. broad. The female one is 10 to 13 m. m. long and 1 m. m. broad. Both are cylindrical in form, white when they are alive, and brownish when dead. In both sexes the posterior part is the broadest part, from which the body tapers forward to a narrow neck ending in a powerfully armed head and a distinct mouth capsule. The margin of this organ is furnished with four hooks, two on each side and two teeth on each side. The tail of the male has an umbrella-like expansion.

(2) The *Necator Americanus* is a shorter and a more slender worm. The buccal capsule is smaller and instead of the hooks it has prominent semilunar plates on the ventral side. Instead of the teeth it has got the semilunar plates on the dorsal side.

Some say that we cannot distinguish the one from the other by the naked eye. We can. Put the worms in an ounce

glass containing some water. The head of the *Necator Americanus* will be seen to be more curved forward, the neck separated from the head by a distinct curve, and the tail drawn backwards, thus resembling an inverted "S".

The head and the tail of the *ankylostoma duodenale* are bent towards, the ventral aspect and the curve of the neck cannot be observed. This differentiation cannot be made when the worms are on a dry place, but only when they are in the water. To verify the truth of the naked eye differentiation one can have recourse to the microscope.

The habitat of the hookworm is the small intestine, especially the Jejunum, and rarely the other parts of the alimentary canal. In these situations, it attaches itself by means of its powerful buccal armature to the mucous membranes and draws blood therefrom and lives upon it. It shifts from place to place leaving a small raw surface there wherefrom the blood continues to ooze for some time as the coagulability of the blood is lessened by the toxins injected by the worms.

Life History of the worms:—The female worm lays innumerable eggs which do not develop in the human body, but when they go out they develop into larvae within 48 to 72 hours. There must be enough of moisture for this development which moisture is readily found in the ground of the Indian latrines. For about a week the larvae feed very vigorously and moults twice within the period. After the second-moulting it does not eat anything. It lives for 3 or 4 months or even for years in the soil. This is the stage in which it is most dangerous to man. By chance it may go into the human host, and moults again, when it acquires its sexual characters.

Method of culturing the stools for the larve.—Take a small quantity of the suspected faeces, say about the size of a tamarind seed and mix it thoroughly with distilled water. Filter it through a thin piece of gauze. Pour the filtered contents into a sterilised petri dish in the centre of which is placed a small quantity of well powdered charcoal in the form of a small hillock. A small quantity of water is again added to

the contents, the dish well covered and kept aside for 48 to 72 hours, before which time the larvae will be formed. Take a small quantity of the contents of the petri dish with a little water, and spread it over a glass slide. Keep the microscope in a vertical position and examine the slide with a low power lens. The larvae can be seen vigorously moving about and eating the food.

The idea of putting the charcoal is to absorb the ammoniacal gases present in the faeces. Charcoal has the property of absorbing 500 times of its volume of gas.

Looss explained that the larvae enter through the skin, producing what is known as the ground itch and then enter the blood vessels and the lymphatics and thus passing on to the capillaries of the lungs, wherefrom they pass on to the air vesicles and air passages, to the throat and gullet, and after swallowing reach the stomach and the alimentary canal. The gastric juice of the stomach has no action on the larvae, as by this passage they have acquired a power of resistance to the gastric juice.

Samson explains that the larvae reach the intestines directly through the blood vessels. Giles holds that there may be a sexual cycle outside the human body. In any case the ground itch is not necessary. As far as the duration of life of ankylostoma duodenale in the intestines of man is concerned, nothing definite is known.

Symptoms.—Anaemia is the chief sign, but comes on very late and it is only then that the disease is suspected. Dyspepsia is also common. There is no wasting. It is very rare that people give a history of passing blood in the stools, although it is often mentioned as a sign in the books.

Pain and burning sensation in the epigastrium, anorexia, or voracious appetite, fever of an irregular type, puffy face oedema of the dependent parts, lassitude, breathlessness, palpitation, tinnitus aurium, vertigo, defective vision, mental apathy are all concomitant symptoms. There is a slow and

steady fall of the richness of the red blood corpuscles as far as compatible with life. Haemoglobin of the R.B.C. is more deficient when compared with the diminution of the R.B.C. Eosinophilia is very marked. Sometimes the cases may be very acute, the patients dying in a few weeks or months.

Prognosis.—It is not bad as far as the patient is concerned but the disease often takes a chronic course.

Diagnosis.—There is now a belief that in our presidency there is no primary anaemia except that due to Ankylostomiasis. In all cases of anaemia the stools should be examined.

Dr. Mashkar's method of examining the stools.—A small quantity of the fresh faeces about the size of a tamarind seed is taken and mixed thoroughly with 1 in 40 Carbolic Acid. It is kept aside for $\frac{1}{2}$ an hour. The solution is then filtered through muslin and the filtrate is then centrifugalised after adding a small quantity of distilled water, if found necessary. A drop of the sediment of the centrifugalised deposit is placed on a glass slide and a drop or two of water is added to it. It is then spread evenly over the whole slide and examined with the microscope in a vertical position with a low power lens. The ova are easily distinguished. The superiority of this method of examination of stools lies in the fact that there is no possibility of the ova being covered by anything so as to obscure it from view, there is no difficulty of focusing it, as the whole sediment has been spread evenly over the slide.

Pathology. The cause of anaemia in ankylostomiasis is due to some toxins liberated by the worms and cannot be due to the loss of blood caused by the worms either by sucking or oozing from the wound at the site of the attachment of the worms in the intestinal canal; inasmuch as the anaemia is too much to be accounted for by the loss of blood. If it is due to the loss of blood, then the proportion of R. B. C. and the haemoglobin will be uniform, whereas in the anaemia of ankylostomiasis the haemoglobin loss exceeds that of the R. B. C.

Treatment. Thymol.—The patient is put on a light diet on the day previous to the taking of Thymol and is given a saline purge. In the morning at 6 A. M. 20 grs. of Thymol well powdered and mixed with 40 grs. of sugar is given and repeated every hour till the patient takes 60 grs. At 10 A. M. a saline purge is given. Castor oil should not be used either before or after Thymol, as it produces a lot of mucous secretion and thus interferes with the absorption of Thymol. Hitherto we were under the impression that Thymol was absorbed by the worms and as a result of it they died, but Dr. Mashkar has proved that Thymol is absorbed by the patient and the worms are poisoned by sucking the blood which contains the Thymol and hence they die. He (Dr. Mashkar) has collected 25% of Thymol in the urine. This is the best and the safest method.

Working on the basis of the absorption theory of Thymol Dr. Mashkar gave an intravenous injection of 8 grs. of Thymol in 25% solution to a dog that was suffering from ankylostomiasis. The dog got Thymol poisoning, but eventually recovered completely. All the worms were passed and the stools became negative after a single course of this treatment.

Oleum Chenopodium.—This is the latest treatment but not the safest. It is a very dangerous drug, highly irritant to the alimentary canal, causing rupture of the capillaries, producing haematemesis, giddiness, vomiting, and collapse. The active principle, which is not found out as yet, is presumed to be so highly volatile that it evaporates even though it is kept under utmost precaution. It retains all its physical characters and loses its active principle which is required to act on the hookworms.

We do not find the results of Chenopodium as satisfactory as reported by the western investigators. It is given in 3 doses of 6 m. each with castor oil repeated at an interval of 1 hour, preceded and followed by castor oil, the patient being placed on a light diet on the previous day. Even here I do not advise the use of castor oil as a purgative, either before or after, for the same reasons quoted above by

me. I recommend a saline purge. It is a very dangerous drug to be used in private practice and more so in Government institutions. Beta Naphthol and Manson's mixture are all antidote treatments.

What is meant by a cure.—After each course of treatment by Thymol, the patient is kept on nutritious diet and blood tonics—Iron, Quinine, Nux Vomica, Syrup Hæmoglobin, etc. Every week the stools should be examined according to Dr. Mashkar's Method quoted above. If positive, the treatment should be continued once a week. The patient can safely be discharged as cured if the stools are negative for at least three times. It generally takes about 6 months to effect a cure.

With an Ex-Sanitary Commissioner in the chair, I do not like to put forward my views regarding the prevention of Ankylostomiasis. He would let us know what we have to do.

With these few words I close my essay, at the same time thanking you all for the privilege extended to me.

THE USE OF STOMACH TUBE (SIPHON) WITHOUT A FUNNEL (RUBBER OR GLASS).

BY

P. N. MAHALANOBIS, *Sub Assistant Surgeon,
Central Jail Hospital, Dacca.*

During the year 1917 while working in the Dacca Central Jail Hospital I had to pass the stomach tube in a case of Chronic Gastritis. After passing the tube for about a month I was disgusted with constant pouring of water into the funnel, as I had to wash the stomach 4 or 5 times in each sitting daily and I had to spend one hour every day for that monotonous work, and it struck me if there be any means to save time and trouble. It then came to my mind that if water can come out so quickly and easily from the stomach, it may as well pass into the stomach from outside by the same action (siphon action). The explanation of Siphon action is as follows;—

There are two vessels, one is stomach inside the body, another is a vessel full of water outside and a rubber tube full of water is connected from the outside vessel to the stomach; since the tube is full of water, water must evidently flow through it if the force which pushes it in one way is greater than that which pushes it the other way. Now the upward pressure of water at the vessel is equal to the atmospheric pressure minus downward pressure due to the water column inside the tube, consequently the upward pressure at the vessel exceeds the downward pressure of the water column inside the tube; hence water will quickly pass from the vessel through the tube into the stomach and *vice versa*.

I commenced my experiment and came out successful within a week's time in finding out the means desired. The process which I adopted to bring my aim to a success is as follows:—

First take a long rubber tube with one end smooth (not less than 3 feet 5 inches in length) or take a Siphon tube without a funnel, then push it into the stomach and pour some water by a narrow stream from a small jug or from a measure glass very quickly, when the tube is full of water or a quick stream of water is passing through the tube into the stomach, then immerse the upper end of the tube promptly into a vessel full of water. The vessel of water must be kept in a place near the mouth of the patient above the level of the stomach of the patient. As soon as the tube is immersed into the vessel water will quickly run through the tube into the stomach. When sufficient water has entered into the stomach bring the upper end of the tube below the level of the stomach; water will begin to run out with the stomach contents through the tube. Both these processes may be repeated as many times as required.

Now one can at once ask what are the advantages of this process in washing out the stomach contents which in my humble opinion are as follow:—

(1) It saves much time and trouble.

- (2) It does not require any assistant.
- (3) It does not require constant pouring of water into the funnel.
- (4) It saves money necessary for buying a glass funnel.
- (5) If the funnel is accidentally broken one can manage a case well, *i.e.* he will have no difficulty in washing out the stomach if this process is known to him.
- (6) In out of the way places or in village charitable dispensaries where Siphon tube with a funnel is not always available, the washing of the stomach can be performed by an ordinary long rubber tube and thereby many poisoning cases may be treated and saved.

I request my learned friends to give a trial to the process described above in their practice. I shall be glad to give them any further information that they may require.

OUR CONTEMPORARIES.

VENTILATION OF CINEMA THEATRES.

THERE is a very general belief, shared, we imagine, by most members of the medical profession, that the infection of influenza is frequently spread in places of public assembly, such as churches, lecture rooms and theatres, and that among the theatres cinematograph halls are particularly to be dreaded, not because they are worse ventilated than other places, but because children and young adults visit them frequently and spend many hours in them. An investigation of the ventilation of cinematograph theatres in Birmingham has been made by W. H. Davison, one of the assistant medical officers, and his report has been presented to the Public Health Committee by Dr. John Robertson, the medical officer of health. It is suggested in the report that the standard of ventilation should be such as to ensure that the proportion of carbonic acid in the air at about the breathing level does not rise beyond twenty

volumes per 10,000 of air; to achieve this it is recommended that fans should be fitted and maintained in good order, and that the space allowed for each person should be not less than 120 cubic feet. Dr. Robertson observes that the provision of adequate ventilation everywhere in a cinematograph theatre when the house is full is no easy matter, but the difficulty has been solved in some of the houses in Birmingham, where, in mid-winter full houses were ventilated under the most difficult conditions. The general principles he lays down as necessary for securing adequate ventilation are, first, that efficient extraction fans must be kept continuously at work during the performance, and secondly, that adequate inlet openings must be provided and kept open in such situations as will permit of uniform distribution of the fresh air. During cold weather this incoming air must be heated, otherwise unbearable draughts will be experienced. A point made by Dr. Robertson is that doors should be so arranged that in the intervals between performances houses may be thoroughly flushed with fresh air. Unfortunately, in some of the larger houses there is no break in the afternoon and evening performances.—*B. M. J. for June 1919.*

AERIAL SPAS.

IN a brightly written article in the current number of the *National Review*, Captain E. Brown, R.A.M.C., first argues in favour of the truism that mankind is ever slow to change the fixed beliefs of the ages, adding the rather sarcastic corollary that his conservatism is always supported by the best expert advice of the day, and then brings forward certain novel ideas in order to disseminate in the public mind the view that there may be something in aerial medicine. Although a permanent residence in the air is not yet feasible, the development of the giant airship provides possibilities of the remaining at high altitudes for considerable periods at a stretch. Thus a germ-free atmosphere (superior in this respect to that for which the rich journey to Davos-Platz) can be obtained 5,000 feet above

Oldham or Bradford for those with shallower purses; and the picture of the aerial hospitals for early pulmonary tuberculosis, gliding gracefully over our cities, is drawn, not as the phantom of a dream, but as a realizable possibility. The advantages and disadvantages of the altered atmospheric pressure are discussed; they are, of course, familiar, but the reader's attention is specially directed to the volume and movement of the air at high altitudes as possibly factors of considerable importance, for the degree of motion and the immense volume present at high altitudes can rarely, if ever, be obtained on the earth. The author, who certainly writes with enthusiasm, foresees vast curative possibilities from the stimulating effect thus provided, and prophesies that we may in time go to aerial spas just as we now go to Bath or Harrogate for certain diseases. A month or two ago we received from Captain H. W. Bernard, R.A.M.C., a communication in which he worked out in some detail the requirements for fitting out a captive airship as a tuberculosis sanatorium.—*B. M. J. for June 1919.*

SYPHILIS AND HERPES ZOSTER.

CAPTAIN W. H. Brown and Dr. B. Dujardin⁽¹⁾ have recently investigated the question of the relation, if any, between syphilis and herpes zoster. Among 12 cases of herpes zoster observed by Brown there were two only in syphilitic subjects, and among 19,000 cases of syphilis Major C. White observed herpes zoster during treatment with salvarsan or neo-salvarsan in two only: but these patients after discharge from hospital return to their units, and consequently herpes zoster, which is more likely to develop some time after treatment, would be reported through another channel. It is specially interesting to note the rarity of herpes zoster during the course of this form of arsenical treatment, for during the epidemic of peripheral neuritis, which also takes some time to develop, due to beer

(1) *Brain*, 1919, xiii, 86-91.

contaminated with arsenic in 1900, herpes zoster was observed to be specially frequent, and indeed suggested to Dr. E. S. Reynolds that arsenical poisoning might be responsible for the extensive outbreak of peripheral neuritis. But among 1,200 syphilitic patients kept under observation for a much longer time than those tabulated by Major White, Dujardin found 9 cases of herpes zoster, or 0.4 per cent., as compared with an incidence of 10 cases of zoster, or 0.1 per cent. among 13,000 other patients under his observation. It would therefore seem that syphilitic patients are disposed to herpes, and it is suggested that the meningeal reaction present in the majority of leucic subjects, especially after the primary stage, opens the way to infection by the unknown cause of herpes zoster, and that inefficient arsenical treatment may in certain circumstances accentuate this syphilitic meningeal reaction, and so reinforce this predisposition to herpes zoster. It also appears that in syphilitic patients herpes zoster has a predilection for the lumbar and sacral ganglia, and hence the possibility of previous syphilitic infection should be more especially considered when the zoster involves the lower spinal ganglia. In view of the well marked inflammatory changes in the posterior root ganglia it would be natural to expect alterations in the cerebro-spinal fluid in herpes zoster, but comparatively few observations have been made on this point. The authors have accordingly examined the cerebro-spinal fluid in 42 cases of zoster, mainly non-syphilitic, and found that in the majority (28) there was some lymphocytosis, but that it varied enormously from the normal 1 or 2 up to 470 cells per cubic millimetre, ten cases registering over 50 cells per cubic millimetre. There was no explanation for these differences, and certainly they bore no relation to the intensity of the eruption, as might perhaps have been anticipated, for on the whole the highest counts were found in patients with a very slight abortive eruption. On the other hand, some cases with a mild eruption had normal counts, and cases with acute and extensive zoster varied in an extraordinary way from a normal cell count up to 200 per cubic millimetre.—*B. M. J. for June 1919.*

PROCEEDINGS OF THE BRANCH MEETINGS.

AGRA BRANCH, 4th June 1919.—Four members present, including the Chairman, Dr. Hari Singh Bisht.

Resolved that a congratulatory telegram be sent to Col. C. Mactaggart M. B., C.I.E., C.S.I. I.M.S., Inspector General of Civil Hospitals, U. P. for the title of C.S.I. conferred on him.

17th June 1919.—Six members present including the Chairman, Dr. Chada Lal. Resolved 1. Dr. Hari Singh Bisht be appointed as treasurer to collect contribution &c. for the special work kept confidential till now.

2. that a vote of thanks be conveyed to the I. G. of Civil Hospitals U. P. for promoting Khan Sahib Zahid Hosain to the rank of 3rd Grade Assistant Surgeon.

3. and that Messrs. Narain Pershad, Sadabad, Muttra, Jowala Pershad Sharma, Central Prison, Agra, Dalpat Singh, Itmadpur, Agra, and Mohamad Abrar Hosain, Lohamandi, Agra be enlisted as members of the Association.

ALIGARH BRANCH, February 1919.—15 members present, Dr. J. F. Robinson, M. D. Civil Surgeon, Aligarh, presiding.

1. Dr. Lekhraj Singh read the reports of Benares and Calcutta Conferences and thanked Dr. J. F. Robinson on behalf of the All India S. A. S. Association in the capacity of Joint Provincial Secretary of U. P. for the valuable help done to the Aligarh Branch.

2. Dr. Lekhraj Singh read a paper on Intravenous injection of Mercury and its other uses.

3. The T. A. Bill of Dr. Lekhraj Singh for attending the Calcutta Conference was passed for transmission to the General Secretary.

4. The annual election took place, and the following gentlemen were elected office bearers and members of the Executive Committee:—

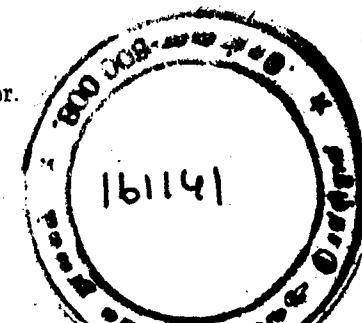
1. Dr. J. F. Robinson, M. D. Civil Surgeon, Patron and Chairman.
2. „ J. C. Roy Chaudhury—President.
3. „ Raja Ram—Vice President.
4. Chandra Mohan—Secretary and Treasurer.
5. Dr. Mannu Lal—Joint Secretary.

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Members of the Managing Committee :—

- | | |
|------------------------|---------------------|
| 1. Dr. Dwarka Pershad. | 4. Dr. Abdur Rahim. |
| 2. „ Prem Kishore. | 5. „ Lekhraj Singh. |
| 3. „ Md. Ashraf. | 6. „ Mukkhan Lal. |
| 7. Dr. Naurangi Lal. | |

5. The worthy Chairman then gave a very interesting clinical lecture on the Intravenous Injection of Mercury on an indoor patient.

6. After a vote of thanks to the chair the meeting dissolved.

BOMBAY BRANCH, 13th April 1919.—Mr. H. R. Heblekar in the Chair; 13 members present.

Mr. J. P. Mascarenhas was unanimously elected as Honorary Secretary in place of Mr. N. D. Joshi transferred. Mr. S. Jagadeesan, L.M.P. read a very interesting paper on 6 cases of cerebro-spinal fever treated with anti-meningococcus serum, and demonstrated the charts of the cases:

Mr. P. V. Krishna Iyer, L.M.P. read the notes of a case of yaws seen in the agency tract of the Godavery District. Mr. G. B. Parulekar, L.C.P.S. read the notes of a case of "Stricture of rectum." Patient was a male aged 20, took ill on 1-11-18 for diarrhoea, stools liquid, bloodstained, with lumps of faecal matter; there was accumulation of faecal masses in abdomen which were mistaken for tubercular glands; and the diagnosis of stricture was made on 3-3-19 on a rectal examination: His Wasserman was highly positive + + + some improvement was noticed on antisyphilitic treatment.

Mr. A. Muthusamy, L.M.P. read the notes of the following cases: (a) Patient, male, aged 21 had sub-acute otitis media of a month's duration and was seen on 14-2-19; was on expectant treatment. The discharge was getting less but on 27-2-19 the part in front of the left ear was swollen: No swelling or tenderness of the mastoid process: but the swelling was on and above the left zygoma on temporal fossa extending to outer canthus of left eye. Temperature normal but pulse varying from 96 to 100. Patient apparently well: swelling of the temporal region began to increase and on 6-3-19, patient could hardly open his left eye: he was operated under chloroform, with the usual incision and retraction of the temporal muscle, pus came out from underneath the muscle. Macewens triangle was very soft and a piece of bone came away very easily, a small piece of bone above the zygomatic

ridge was carious and was gouged out. The swelling in the temporal fossa was probably due to suppuration of the antrum which had made its way above the zygomatic ridge. Temperature was normal and it rose to 103: On the 9th the patient was restless: On the 10th he was unconscious and irritable: Temp. 103°. F. Pulse 84. Pupils dilated acting sluggishly. Neck rather stiff. Slight congestion of the optic discs. The wound was explored again under chloroform and an abscess cavity of the temporo-sphenoidal lobe was drained. Patient was unconscious throughout the 10th and 11th. No paralysis was noticed. Temp. was continuous, the patient's condition became worse and he died at about 9 P.M. on 11-3-19. Post mortem examination showed diffuse suppurative pachy meningitis with meningo encephalitis of the sphenoidal lobe and necrosis of the left temporal bone above the zygomatic arch and of the roof of the antrum.

(b) A male aged 24, was admitted on 15-10-18 with swelling of his left foot. On 21-10-18 sinus formed and bone felt. On 26-10-18 early signs of tubercle in both the apices of the lungs. Sputum showed tubercle bacillus on 16-11-18. The lower 3rd of the leg was amputated at the seat of election under chloroform anaesthesia. Patient was much emaciated with many sinuses in the left foot. Section of the foot showed caries of the lower end of fibular and of all the bones of tarsus and metatarsus. The case is important in the simultaneous exhibition of pulmonary and surgical tuberculosis.

(c) A case of recurring appendicitis in a male aged 30. It was thought to be a quiescent eye and during one operation it was found that the appendix was gangrenous and adherent and that an abscess had formed. This was drained. A faecal fistula formed subsequently and the case eventually did well. There were no signs or symptoms to show that such a serious lesion was present. Another important observation was that the sugar in the urine which was present before operation disappeared two weeks after the operation. This transient glycosuria was noticed in the following cases also.

(1) A case of inflammation of cellular tissue in foot in a fat man aged 50.

(2) A boil in the chin in a man aged 24.

(3) A case of gluteal abscess after intramuscular injection of quinine in a patient aged 21.

(4) A case of osteomyelitis of the tibia in a patient aged 22.

(d) Notes of a case of abscess of the liver in a man aged 35 was read. The man had profuse venous haemorrhage from the abscess cavity with shock : Ordinary measures revived the patient.

Mr. N. S. Narasimhaiyer showed a case of intranuclear type of double facial paralysis in a man aged 25 ; the paralysis was noticed on the right side in January and on the left side in February after a month. There was no constitutional disturbance. At present the patient has insensitive palate, laryngitis with paralysis of the adductors and bronchitis. No tubercle bacillus in sputum, no evidence of Syphilis.

Mr. N. S. Narasimhaiyer then read the notes of medical inspection of school children conducted by him in (a) High School, Pattamadai, Southern India and (b) two elementary schools in Kurnool District.

11th May 1919.—Mr. Shankar Kanoji (in the chair) ; 11 members present ;

Mr. M. M. Doctor read the notes of a case of Kala-azar in a male aged 23 recently returned from East Africa as a case of Broncho-pneumonia and was in hospital for 4 months for fever. All bacteriological examinations negative—Splenic puncture was done on 23-3-9 and L. D. bodies were found. Patient was treated with 2% Solution of antimony Tartras ; after the 2nd injection patient collapsed with high temperature and died on 3-4-19.

Mr. Jwalaprasad demonstrated (1) an X Ray plate of early Tubercle of lungs showing area of consolidation behind left clavicle and bronchial glands on both sides (2) a plate of advanced tubercle of lungs showing calcified patches and a cavity in the right lung and enlarged bronchial glands on the left side. The patient's is a case of caries of 2nd and 3rd dorsal vertebra. Mr. G. B. Parulekar, L.C.P.S. read the notes of a case of Rat-bite-fever in a female aged 34 bitten on 29-11-18 in the forearm. Wound was cauterised after 2 hours with carbolic acid. Fever since the 8th day of the bite ; treated with injections (subcutaneous) of Sodium Cacodylate $\frac{1}{2}$ gr ; the injection was repeated on the 11th day ; on the 15th day 2 grs. injected ; Temperature used to drop down a few hours after the injection. The glands at the elbow and groin enlarged with erythematous rash on the face ; 4th injection was given on the 26th day 3, grains in C.C. Now patient began to develop mental symptoms and lost much weight. 5th injection on the 30th day with 3 grs. Rash on the face and nervous symptoms disappeared but the patient is still weak, with some cedema of legs. No albumin in urine. The prognosis

of this case is not probably good. Patient kept up a remittent type of fever throughout the course.

Mr. N. S. Narasimha Iyer read a paper on "indigenous drugs on scientific lines" and demonstrated a few drugs.

Mr. A. Muthusamy demonstrated a specimen of calcified tuberculous glands removed from the middle line of the back in the lumbar region from a male suffering from tubercular glands of the abdomen.

8th June 1919.—Mr. Shankar Kanoji in the Chair. 9 members present.

(1) Mr. Jwalaprasad, L.M.P. read an interesting paper illustrated by skiagrams on "The diagnosis of early tubercle of lungs by X Rays".

(2) Mr. G. B. Parulekar, L.C.P.S. read notes of cases of severe influenza with broncho-pneumonia treated by intravenous injections of Tincture of iodine in saline. The case mortality was 40 per cent.

(3) Mr. N. S. Narasimha Iyer L.C.P.S. read a paper on "The clinical conditions met with in influenza".

(4) Mr. N. S. Narasimha Iyer, L.C.P.S. showed photos of 3 cases of Tetany in children with notes of the cases.

Of these, 2 are children of the brothers of the same family. The interesting point was that recovery did not take place even after such a long time as 2 years. All authorities say "that recovery takes place in the course of a few weeks or months".

BARODA BRANCH, 25th May 1919.—5 members present, including the Chairman Dr. Ambaram Harishanker Joshi.

A paper on "The comparative value of some drugs in the treatment of syphilis" was read by Mr. Ambaram Harishanker Joshi.

13th July 1919.—6 members present, including the Chairman, Dr. Ambaram Harishanker Joshi.

Resolved that the Chief Medical Officer be requested to move His Highness' Government to revise the scale of the Sub-Assistant Surgeons' pay according to the Bombay scale.

BENARES BRANCH, 13th February 1919.—Dr. Murari Lal presided. (1) Proceedings of the last meeting were read and confirmed. (2) Accounts of the Provincial Conference were read and passed.

GUJERAT BRANCH, 25th May 1919.—5 members present, including the Chairman Dr. Joseph Benjamin.

There was discussion about the last epidemic of influenza. At the end of it the Finance Committee met and transacted their business.

KARACHI, 23rd March 1919.—15 members were present including Dr. Rochiram in the Chair;

The election of office bearers on 16th February 1919 was confirmed.

After discussing some scientific matters the meeting dissolved with a vote of thanks to the Chairman.

11th May 1919.—9 members were present, including the Chairman Dr. Rochiram.

Proceedings of the last meeting were read and confirmed.

Madhowji Machhar having resigned his office of Secretary, Karachi Branch, Dr. Mohamad Rahimankhan proposed Dr. Parmanand Lekhraj as Secretary. Dr. Parmanand Lekhraj was unanimously elected Secretary, Karachi Branch in place of Dr. Machhar.

Dr. Parmanand proposed that a memorial be submitted to the Hon. Surgeon-General with the Government of Bombay to kindly reserve for the Sub-Assistant Surgeon class the two appointments of House Surgeon recently created by Government in the Hyderabad Civil Hospital.

Resolved that Dr. Rochiram be authorised to prepare a memorial to this effect for submission to the Surgeon-General with the Government of Bombay.

The meeting dissolved with a vote of thanks to the Chairman.

11th June 1919.—16 members were present, including the Chairman, Dr. Rochiram.

Proceedings of the last meeting were read and confirmed. Dr. K. M. Hiranandani read a paper on the treatment of Syphilis, Tuberculosis and Malaria.

Proposed by Dr. Jagdishram and seconded by Radha Mohanlal that the United Provinces Provincial Secretary be requested to give his prompt attention to the grievances of the S.A. Surgeons of the province as shown in the resolution passed unanimously.

Resolution.—That the Government of the United Provinces be requested to count for grade promotion the period of temporary service prior to confirmation, of those who signed the agreement when G.O. No. 480 V—125 dated 12th January 1912 was operative.

2. That this branch protests against the Local Government's decision on the grounds—

(a) That G.O. No. 331-V—23, dated 29th June 1915 withdrawing the concession, is not applicable in their cases, as it has been issued long after their joining the service and signing the bond.

(b) That as the condition of service, grade promotion etc. of S. A. Surgeons are different from those of the Assistant Surgeons, the orders of the Government of India being meant only for the latter and in no way applicable to the former.

3. That a copy of these resolutions be sent to the Provincial Secretary of the United Provinces, and that he be asked to take early steps in the matter.

22nd June 1919.—14 Sub-Assistants were present including the Chairman, Dr. Rochiram.

Proceedings of the last meeting were read and confirmed.

Dr. Jogdishram read a paper on ankylostomosis.

After discussing some scientific points the meeting was dissolved with a vote of thanks to the Chairman.

MORADABAD DISTRICT BRANCH, 26th April, 1919.—5 members were present, including the Chairman Dr. Md. Usuf Ali Khan. After some discussions the following resolutions were passed unanimously.

1. That doctors should be cautious and avoid as far as possible the use of patent medicines, specially those whose formulae are unknown to any save the manufacturer.

2. That the Medical Council be requested through our representative to recommend to Government that Licensed Medical Practitioners in private practice may be employed as Honorary Surgeons and Physicians in District and other charitable Hospitals and Dispensaries, as is done in some places.

3. The paper of Dr. R. N. Trivedi on 'Interstitial Keratitis' was next briefly described by the writer himself.

SECUNDERABAD BRANCH, 8th May 1919.—12 members were present, including the Chairman Dr. C. Manikka Mudaliar.

Mr. P. A. Narayana Iyer, L.M.P. read a paper on "*Dysentery*",

It was followed by a lively discussion in which many of the members present took part. With a vote of thanks to the chair the meeting terminated.

16th June 1919.—18 members were present, Col. W. G. Pridmore presiding.

In addition, the following officers were also present.

Major J. Anderson, I.M.S. Captain P. S. Roy, I.M.S. Captain P. M. Mathai, I.M.S. Captain S. N. Chandra, I.M.S. Captain Gosh, I.M.S.

The President gave a short and very interesting speech and said that he had great pleasure to preside over the meeting.

Mr. S. Dakshinamoorthy, L.M.P. read a very interesting paper on "Ankylostomiasis."

Mr. K. Ramachandran, L.M.P. read the statistics, etc., collected by him and demonstrated the ova and larvæ of the Ankylostoma.

Capt. Gosh, I.M.S. gave a life history of the worm and said that Thymol treatment was far superior to other anthelmintics.

The chairman in winding up the proceedings of the meeting passed the following remarks :—

(1) He said that the cause of anaemia in Ankylostomiasis was probably due to some toxins liberated by the worms.

(2) As regards O1. Chenopodium treatment he said that though it was cheap it was dangerous as it produced collapse. The cheapness was overbalanced by the cost of stimulants.

With a vote of thanks to the chair the meeting terminated.

ALL-INDIA SUB-ASST. SURGEONS' ASSOCIATION.

BUDGET FOR THE YEAR 1919.

CASH BALANCE A.		Rs.	A.	P.
1. With the General Secretary				
(Dr. Venkappa) on 1—1—19.		81	3	0
With Branch Secretaries		0	0	0
		81	3	0
	Rs.			
3. Postal certificates with the Finance Committee	... 7500			
4. Fixed deposit in Madras Bank	... 3000			
5. Govt. Promissory Notes with the General Secretary	 500			
6. Post office savings banks with Finance Committee.	603			
	—	11,603	0	0
INCOME B.				
1. Interest	... 167			
2. Miscellaneous income	... 150			
3. Advertisements.	... 900			
4. Subscription of old members 2,500	 7500			
5. Subscription of new members 200	 600			
6. Admission fees for new members	... 400			
7. Recovery of old advertisements for which bills are sent now	 599			
	—	10,316	0	0
Grand Total		22,000	0	0

EXPENSES C.

	Rs.
1. Printing Journals ...	4000
2. Postage and telegram ...	1000
3. Stationery and printing ...	500
4. Pay to clerks and servants	900
5. House rent ...	360
6. Miscellaneous	450
7. Travelling allowance for attending the Calcutta Conference ...	1800
Carried over ...	9010

Brought forward ... 9,010 0 0

OLD BILLS TO BE PAID D.

1 Travelling allowance (Old account).	... 400
2. Tatva Vivechaka Press Bombay	... 3068
3. Other old bills	... 1093

Grand Total ... 4,561 0 0

Balance on 31st December 1919 ... 8429 0 0

Rs. A. P.

Statement of monthly account of the Family Fund, Indore for the month of April, 1919.

Income.		Expenditure.	
Name of Item.	Amount.	Name of Item.	Amount.
	Rs. A. P.		Rs. A. P.
Balance on 1st April 1919	409 1 9	Deposited in the Postal Bank	805 0 0
Deposit for calls up to No. 46	3 0 0	Clerk's salary Paid B. N. Dixit	15 0 0
47-48	2 0 0	Purchase of Postal stamps	12 4 0
49-51	15 0 0	Printing charge of call No. 60	3 0 0
52	10 0 0		
53-54	34 0 0	Balance	835 4 0
55-59	279 8 0	Grand Total	9 5 9
60	58 0 0		844 9 9
Further call	29 0 0		
Usual deposit and M. S. Fee	5 0 0		
Grand Total	844 9 9		

S. G. PATWARDHAN, *Manager.* G. A. DESHPANDE, *Secretary.* S. N. SHARANGFANI, *Director.*

Statement of monthly account of the Family Fund, Indore for the month of May 1919.

Income.		Expenditure.	
Name of Item.	Amount.	Name of Item.	Amount.
Balance on 1st May 1919.	Rs. 9 5 9	Purchase two Books for Registers	Rs. 2 4 0
Deposit for calls up to No. 46	3 0 0	Clerk's salary paid B. N. Dixit	15 0 0
47-48	6 0 0	Purchase of Postal stamps (Postal expenses).	3 0 0
49-51	11 0 0	Purchase of Holders, Nibs (Stationery).	2 8 9
52	7 0 0		
53-54	23 0 0	Total	22 12 9
55-59	190 0 0	Balance	388 1 0
60	91 0 0		
Further call	54 0 0		
V. Deposit and M. S. Fee	16 8 0	Grand Total	410 13 9
Grand Total	410 13 9		

G. A. DESHPANDE,
Secretary.S. G. PATWARDHAN,
Manager.S. N. SHARANGPANI,
Director.

Statement of monthly account of the Family Fund, Indore for the month of June 1919.

Income.		Expenditure.	
Name of Item.	Amount.	Name of Item.	Amount.
Balance on 1st June 1919	Rs. 388 1 0	Clerk's Salary	Rs. 15 0 0
Deposit for calls up to No. 46	18 0 0	Registration charges and money	7 12 6
47-48	4 0 0	Order Fee and Purchase P. Stamps	12 0 0
49-51	10 8 0	Payment to call 47	14 0 0
52	23 0 0	48	25 0 0
53-54	9 0 0	49	45 0 0
55-59	53 0 0	50	40 0 0
60	19 0 0	51	43 0 0
Further call	5 0 0	52	50 0 0
Membership fee	20 8 0	53	232 0 0
Withdrawn from P. Bank	950 0 0	56	226 0 0
		57	223 0 0
		58	210 0 0
		59	206 0 0
Grand Total	1500 1 0	Total	1348 12 6
		Cash Balance on hand	151 4 6
		Grand Total	1500 1 0

S. G. PATWARDHAN,
Manager.G. A. DESHPANDE,
Secretary.S. N. SHARANGPANI,
Director.

LETTERS TO THE EDITOR.

SUBSTITUTE FOR COD LIVER OIL.

I. (Bombay) Bhui Kohala, (Sans) Bhumi Kushmanda, (Hindi) Bidari Kanda (Tamil) Phalmodika (Canarese) Nela Kumbala (Malabar) Motal Cantu, (Telugu) Nela Gummuda (Botany) Batas Paniculata.

N.O. Convolvulacae:—This drug is a big root. Method of administration:—Powder of this Root 1 lb., flour of Indian barley 1 lb., wheat flour 1 lb. Mix and fry in 1½ lbs. of ghee and add 2 lbs. honey, stir and make into a sweet-meat (Halwa). Dose.....2 to 4 Drams.

Properties.—Patient feels hungry, digests food, gets motions regularly and sleeps well. After a fortnight his colour improves, he puts on weight, and feels satisfied with himself.

Uses:—This Halwa is to be given in loss of weight, melancholia, and Neurasthenia. It acts like Cod Liver Oil. In old books it is considered to be an Aphrodisiac, but it is not. On the contrary it checks morbid sexual craving. Please try this in cases where Cod Liver Oil is indicated and publish your results.

II. *Embella Ribes B. P.*—This drug has been found useful in Tubercular glands in the neck. The usual dose in these cases is 1 dram a day to be given with honey; during its course the inflammation round the glands subsides first, so that the glands appear to have been separated. Fever lessens, if any, and subsides after a month and a half; then the glands get smaller and smaller and after 4 or 5 months' time they disappear completely. This happy result has been found in 18 cases. To help digestion and assimilation Indian myrrh was given with it. Please try it in Tubercular glands of the neck and publish your results.

Some of you should try the active principle *Embelic Acid* which is given in 10 Grs. doses 'with lime water' T.D.S. N.B. Nobody has used this drug in tubercular glands.

III. *Ashwagandha*:—This drug is well known throughout India; it could be had at any Indian Druggist; it consists of roots; the current price is about 6 to 8 annas a lb. The natural order and the Latin name given to this drug by the European botanist are wrong. This drug acts as an alternative tonic; given to children it increases their weight and improves the colour. Given to women it stops the backache and cures leucorrhoea and menorrhagia due to atony.

Method of Giving:—A tea spoon full of the powder to be fried with equal quantity of good ghee, ¼ lb. milk is added; conjee is made with little sugar; give this conjee once or twice; for children ½ the dose.

Please try this drug in marasmus of children and backache of women; and publish your experience.

"N"

QUARTERS FOR SUB-ASSISTANT SURGEONS IN THE INDIAN STATION HOSPITAL.

The scheme for the Indian Station Hospitals has matured and come into force from 1-12-18. The scale of accommodation for Sub-Asst. Surgeons is very poor and decidedly inadequate, as will be seen from the following extract:—

"3 S. A. Surgeons per 100 beds.—1. Senior, two rooms 15' x 10' each with 8' veranda in front, with cook house 6' x 6', bathing place 6' x 5' and compound 32' x 31½'. 2. Juniors, one quarter as above."

One wonders how the authorities could have come to this decision. In the case of followers they have given due consideration to caste differences, but in the case of Sub-Assistant Surgeons they have totally overlooked all that. Supposing two

junior Sub-Assistant Surgeons are of different castes and religions and married men, how are they to put up in the same building without any partition wall, only one kitchen and one bath room being provided for both?

The quarters provided for the Senior Sub-Assistant Surgeon also require expansion and alteration to make it worth living in, but those for juniors call for the immediate and kind attention of the Government. It may be argued in favour of the present design and scale that it is a temporary one, but who knows how long it will take to build permanent station hospital buildings and whether even then this unfortunate, but at the same time most useful and cheap, class of medical men will be treated more favourably than at present? In the meantime how can the junior Sub-Assistant Surgeons manage to live in one quarter with their wives and children. Cannot the benign Government kindly provide for separate and suitable accommodation for the junior Sub-Assistant Surgeons without any loss of time. In case the present scale is adhered to, the junior Sub-Assistant Surgeons will have to remain in the station hospitals without their families; even then if both cannot cook and dine together it will be impossible for them to live in the same quarters.

It is a pity that these so called junior men, (among whom will be found men with even 15 years of service) on returning from overseas after about 5 years of active service have to keep away from their families on account of inadequacy or total absence of accommodation—"Interested."

The Indian Medical Journal.

Vol. XIII.]

JULY 1919.

[No. 7.]

SUB-ASSISTANT SURGEONS AS HEALTH OFFICERS.

Speaking on the occasion of the opening of the Sanitary, Scientific and Indigenous Drugs Exhibition held at Calcutta in January last under the auspices of the All-India Sub-Asst. Surgeons' Association, His Excellency Lord Ronaldshay, Governor of Bengal was pleased to remark that there had been little disposition among medical men to qualify themselves for the diploma of Public Health and to look to sanitation for a career, because the openings for qualified sanitarians had been few. His Excellency also expressed his intention to move the District Boards to entertain fully qualified Health Officers. Given adequate salaries and decent status, we feel sure that our men will cheerfully avail themselves of the proposed openings and work heart and soul for improving the standard of public health and sanitation in the country. We, however, think that the interests of public health demand much more than the entertainment of a few qualified medical men as Health Officers in the service of District Boards. It is our experience that epidemics generally break out and find a deep root in congested and insanitary towns and cities and, from there, spread to the outlying villages, and it is therefore imperative that any measures for the improvement of sanitation and prevention of disease should first be tried in compact urban areas. In this Presidency

SUB-ASSISTANT SURGEONS AND MALAYA.

We are indebted to a friend of ours, a medical gentleman employed in the Federated Malay States, for giving a 'timely hint' to Sub-Assistant Surgeons intending to take up jobs in that distant, but rich and rapidly progressing country. The local medical school there turns out two classes of medical men, viz., Assistant Surgeons and Hospital Assistants. The course of training in the case of the Assistant Surgeons is one of five years and accepted by the British Medical Association, while that of the Hospital Assistants is only one of two years or thereabout. The Assistant Surgeons are put in charge of Government hospitals, and the Hospital Assistants generally work under the supervision of qualified medical men. There are also several rubber estates with a European Medical Officer periodically visiting their hospitals, which are generally in charge of resident Hospital Assistants. For the sake of efficiency some estates employ the apothecaries of Ceylon or Assistant or Sub-Assistant Surgeons from India, in addition to the European Medical Officer. Owing to the paucity of apothecaries and the costliness of employing Assistant Surgeons, some Visiting Medical Officers are trying to enlist Sub-Assistant Surgeons. A Hospital Assistant can expect 90 to 100 dollars a month and, in the long run even 200 dollars, a dollar being equivalent to about Re. 1½. But intending Sub-Assistant Surgeons may demand terms commensurate with their 4 years training.

NOTIFICATION.

We invite the special attention of our numerous readers to the following notification sent to us for publication by the Agency Surgeon in Bundelkhand.

"Wanted two Sub-Assistant Surgeons. One to take charge of State Hospital, Sarila, the other as Head Jailor and Medical Officer, Datia State Jail. Particulars from Agency Surgeon, Nowgong, Bundelkhand—C.I."

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The book has been approved and supplied to all the Jails in C. P. and Berar by the Inspector General of Prisons, C. P.

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M. P. DIKSHIT,

Chhota Chhindwara, Dispensary, P. O. Gotegaon, G. I. P. Ry., Dist. Narsingapur.

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alone there are about 60 Municipalities of varying degrees of importance to whose care is committed the health and well-being of something like 2½ millions of men, women and children, and few of these Municipal bodies have yet been able to achieve much by way of correcting such faulty features as ill-formed streets and ill-ventilated and congested houses, bad water-supply and worse drainage. "Ten days trained," "15 days trained" and "one month trained" Sanitary Inspectors were, and probably are, in several cases the *de facto* guardians of the public health in most of these Municipalities. Their general educational qualification is poor and their professional attainments poorer still. We do not mean any offence to this class of Municipal servants, some of whom have been of very long standing and have been doing much better work for the poor pay allowed to them, nor is it our intention to rob them of their bread and to see them exposed to chill penury at the fag end of their career: but we must call a spade spade. It is however gratifying to find that Sanitary Inspectors of recent times are fairly well educated and have undergone a pretty long course of training in Sanitary science. Even these can hardly be compared with medical men possessing the diploma of Public Health.

Every Municipality should therefore have as its Health Officer a medical man possessing the diploma of Public Health who can advise the Municipality in controlling the construction of houses, in the formation of streets, in the conservancy of wells and other sources of drinking water, in the prevention of diseases and such other matters calculated to advance the general health and sanitation of the Municipality. If possible, his services may also be utilised for the medical inspection of any school or schools maintained by the Municipality.

To accomplish this rather grand object all Municipalities should be divided into two classes according to their population and revenue. In big and heavy Municipalities such as Madura, Trichinopoly, Calicut, Kumbakonam, Tanjore and Negapatam the place should be filled by one possessing the D. P. H. qualification of England or the local B Sc. qualification, and, if necessary, he may be allowed one or two assistants of the grade of Sub-Asst. Surgeon. In the other Municipalities the place may be filled by Sub-Asst. Surgeons possessing the necessary qualification and these may be paid about Rs. 150 rising to Rs. 300. The above proposal is as modest as it can be, and though it may be found to be a drain upon the slender purses of some of the Municipalities the advantages sought to be secured are immense and public health is invaluable.

Pay and allowances of S. A. Ss. acting as Civil or Military Asst. Surgeons.

We understand that the Government of Madras have sanctioned the grant to Sub-Asst Surgeons holding appointments reserved for civil or military Asst. Surgeons of a pay of Rs. 100 per mensem in addition to the duty and local allowances attached to the appointments; also that vacancies in the appointment of Civil-Asst. Surgeons will in future be filled up by the best Sub-Asst. Surgeon in the District. If our information is true—and we very much wish it were true—we sincerely thank the Hon'ble Major-General Giffard and the Madras Government for this generous order, which is sure to serve as an incentive to Sub-Asst. Surgeons for good work. We also take this opportunity to offer our hearty congratulations to Dr. V. G. Muthayya, Sub-Asst. Surgeon, Government Ophthalmic Hospital, Madras on his recent temporary promotion to the rank of Civil-Asst Surgeon and hope that at no distant date we will have the opportunity of congratulating him on a more substantial promotion.

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[No. 8.]

CEREBRO-SPINAL FEVER

By

MR. S. JACADEESAN, L.M.P.

I place before you some observations, and nature of treatment given, in some six cases of Cerebro-Spinal fever which I came across while doing duty in an infectious diseases section.

In considering the signs and symptoms that are presented by this disease, we are very much liable to overlook the disease, unless we are aware of the prevalence of an epidemic. We may sometimes think that the patients are malingering but careful observation will reveal the truth. Headache seems to be a constant symptom, but it is difficult to elicit as the patients are in a stupor, delirious or in an excitable condition. They say that they feel very heavy in the head. Headache appears to be more occipital, less frontal and temporal. There is also a constant pain in the nape of the neck which traverses down the spine. This can easily be elicited by passing our hand about the nape of the neck and down the spine when some winching of the face can be observed even though he does not complain. There is generally rigidity of the muscles of the back of the neck and also of the muscles of the back. There is also well marked retraction of the head in many cases, and also well marked curvature of the back and head leading to opisthotonos or othotonos, which I actually observed in one case some months back. It was a typical curvature-opisthotonos in nature. Sometimes the patients keep the body in a

certain position owing to the rigidity of the muscles of the body as any little movement from that position causes severe pain.

Some times, the mere appearance of the patient—with his knees drawn up, hands and body flexed and cuddled up—may suggest the disease even to a casual observer. At other times even the muscles of the abdomen are rigid and retracted giving a boat shaped appearance, which was noticed in one case. The temperature is variable. Though there is temperature during the illness, it is not characteristic, but on the other hand deceptive, only two cases had regular high temperature; two others had only very slight temperature for a day or two; and one had only a slight temperature of 100°F and that only on one day during the whole course of his illness. When first seen the temperature may even be normal, sometimes it runs up to 104° and even 106° or 107° just before death after remaining only at 99° during the previous two days. Hence it will be observed that temperature is no guide to the diagnosis of this malady. The pulse appears to be not characteristic, depending only upon temperature, though cases of very slow pulse—about 50 to 60 per minute—are also recorded in some text books. Kernigs sign is an important sign in this disease but that cannot be depended on as it is present in certain other nervous diseases also and its absence does not go against C. S. fever. But the presence of Kernigs must always suggest you Cerebro-Spinal fever. Even though there may not be actual Kernigs present there may at least be pain felt. Generally there is *cutaneous hyperæsthesia*. The patients cannot tolerate even a slight touch or noise, but become violent at once. If left alone undisturbed, they are quiet and drowsy, becoming restless and noisy only at rare intervals. Almost all are agreed in the matter of the appearance of rashes of a *pætechial* or *hæmorrhagic* character in the majority of cases. But in the cases which I allude to no such rash was observed though search was made especially in the buttocks, lower extremities, body and face. Other varieties are also described.

Herpes Labialis appeared in some 3 cases during the latter part of the disease, though it is said to appear very early, about the 2nd or 3rd day, whether the attack is mild or severe. So the presence of rash or herpes becomes also an important factor in coming to a conclusion during an epidemic of C. S. fever. *Diarrhoea* is also said to be common in the latter part of the disease and it was observed in 2 cases during the later stages, the number of motions being four, five or even more in 24 hrs. They call for no immediate treatment as they pass off within 2 or 3 days without any treatment. Of course if it becomes severe interference will become necessary and I believe it will not be very difficult to meet the diarrhoea with ordinary astringent mixtures, unless the general condition of the patient is grave. In the early part of the disease *constipation* seems to be the rule and it has to be relieved by constant enemata. *Vomiting* is said to be one of the chief symptoms in this disease. Only one case was noted to have vomiting and no doubt it was of a troublesome character that passed off in course of time.—*Exhaustion and rapid emaciation* is also a constant feature in this disease and this state was observed in all these cases—Sometimes when the onset is gradual it is said to be preceded by *catarrh* and may then become difficult to diagnose it from ordinary influenza as catarrh may be the commencement of the disease, though this was not observed in any of these cases. Unfortunately no blood examination was done in all these cases. Leucocytes are said to be much increased, 15,000 to 60,000, chiefly polymorphonuclears in this special disease and are also said to be constant and of diagnostic value from other cases of meningitis such as tubercular or syphilitic. For diagnostic purposes Horder and Gow rightly advocate early lumbar puncture under an anæsthetic under the following conditions. "A persistent headache with pains in the back and limbs and progressive loss of flesh accompanied by a leucocytosis should lead to a lumbar puncture and search for the meningococcus." The presence of turbid fluid or pus is strongly in favour of C. S. fever during epidemics and also in stray isolated cases. Its absence or only the presence of clear fluid does not prove

less than that quantity. This is no doubt sound in principle and practice. He further advises for subsequent pains in the back or limbs to give 10-15 grs. of acid acetyl salicylic. Sulphonal for sleeplessness and acid hydrocyanic dil. for vomiting and morphia for extreme restlessness are also advocated by some. Sulphonal was not tried here but its value as a hypnotic in these cases is highly doubtful. Morphia seems to be the best hypnotic and has been freely used in all these cases at the rate of 3 to 4 injections of gr. $\frac{1}{2}$ morphia tartarate each in 24 hours. Personal experience also shows that morphia should be freely used as there is no contra-indication for it. Almost all cases except one or two had retention of urine after lumbar puncture, which had to be relieved by catheter. Nowhere it seems to have been mentioned that retention of urine is a complication in this disease. Most probably it may be due to lumbar puncture and constant administration of morphia. So in treating a case of C. S. fever a constant watch must be kept on the condition of bladder and it should be relieved as often as necessary as these patients may generally fail to complain about it unless they are conscious and even if conscious they may be in a state of stupor in which conditions they are also unable to feel anything and are apathetic. This condition of stupor is also frequent in later stages of the disease. Nursing is another important factor in this disease. Without proper nursing any effort on the part of the physician will be a waste. One peculiarity that was noticeable in these cases was they never refused food. They used to eat whatever was given. Even if food was not given they never complained about it nor wanted it. But if given they simply opened their mouth and swallowed. Even in hopeless cases no difficulty was experienced as regards their feeding though many authors say that feeding is difficult, many cases requiring forced alimentation with the stomach tube. Lastly their throats and mouth should be daily cleared with 1 in 250 of formalin solution or 30 minims of gly. acid carbollic in one ounce of water soaked in a piece of lint, about 3 or 4 times a day, if helpless. If conscious, a solution half the strength of the above should be given to them

and made to gargle and some antiseptic sprays such as lotio acid salicylic or ol eucalypti or eusol and glycerine should be sprayed to the throat and nose about 4 or 5 times in a day. Before going further I shall briefly state what was actually done in the cases under question.

1st case—3 lumbar punctures done. 112 cc. of fluid drawn and 52 cc. of serum injected. Patient died on the morning of the 6th day.

2nd case—One lumbar puncture was done. 35 cc. of turbid fluid drawn. No serum given as it was not available at the time. Died next morning.

3rd case—4 punctures made. 110 cc. of fluid drawn, 82 cc. of serum put in. Died on the 6th day.

4th case—4 punctures performed. 53 cc. of C. S. fluid drawn 30 cc. serum put in. Condition much improved on the 6th day, requiring no further punctures. Patient doing well.

5th case—5 punctures done. 128 cc. fluid drawn, 95 cc. serum injected. He is still alive. He is up to the present moment running an intermittent temperature of normal in the morning, 101 or 102 in the evening every day from the start. His condition is not yet satisfactory. 8 days after the last puncture another puncture was done, no fluid was got and no serum put in.

6th case—3 punctures made. 85 cc. of fluid removed, 80 cc. of fluid put in. On the 4th day he looked quite well and conscious. L. P. was done on the 4th day and no fluid drawn. Large doses of serum were given to this man and no opinion can be given as regards its effect.

Now I shall proceed to describe the technique of lumbar puncture so far as I have understood. *Lumbar puncture* is an operation which, if once done, gives one confidence to attempt further and is also easy, unattended with dangers if done under proper antiseptic precautions.

The instruments and appliances required are:—

1. One fine trochar and cannula about 3 " long or a stout blunt needle of the same length with stillette or preferably a serum syringe with a long needle as, then, we will be able to introduce the serum at once.
2. Tinct Iodine.
3. Collodium.
4. Some antiseptic lotion.
5. Chloroform.
6. A sterile test tube.
7. Some serum kept warm in a bowl of warm water so that it may be at body temperature when introduced.

Technique: There are 2 ways of doing this. One making the patient sit up and bending him and the other putting him on his side. In these cases making a patient sit up and doing the operation without an anesthetic is out of question. Hence I shall describe as clearly as possible the 2nd method that is being practised in the hospital I am working in:—The patient is generally put on his left side and brought to the edge of the bed. When he is fully under chloroform both his knees are drawn as high up as possible and the shoulders bent down so that the lumbar region may become prominent. After fixing the patient in this position you search for the 3rd lumbar space. This is easily done by connecting the highest points of the crests of both the ileum by a line drawn transversely across the back. This line generally passes over the 3rd lumbar spine. The interspace just below or above it, in the middle line of the back is marked out. Tr. Iodine is applied. Then fixing the skin with the thumb or forefinger of the left hand over that particular spot you push in the needle with the stillette. As soon as you get under the skin into the subcutaneous tissue you just feel for the bone and then gently push the needle with the stillette forwards and a little upwards (for about 2 " to 2½ " aiming the theca in the middle line and then withdraw the stillette or the cannula whichever it is. If you are in the right track you will hardly require any force. If you come across the bone you just withdraw the needle a little underneath the skin, but not completely outside, and slightly alter the direction in a little more upward direction always aiming at the centre of the canal. Sometimes you completely fail to reach the canal and it will be better to postpone it to another

sitting either a few hours after or the next day. It is important to get some fluid as early as possible at least for diagnostic purposes. This is a thing which cannot be delayed as the earlier the treatment given the more the hope for the patient. But with proper technique it is seldom you fail if there is any fluid in the canal. Another method is that you spot out the 3rd lumbar interspace as above and insert the needle about ½ " on either side of it, then as before feel for the bone and gently push on the needle forward, a little upwards and inwards, aiming at the theca in the middle line. Now you collect as much fluid as comes out. If the fluid spurts out or flows in a continual stream it is said to be under pressure. If it only escapes slowly in drops it is said to be not under pressure. The amount of fluid normally present is nowhere definitely stated. Up to 15 to 20 cc. may be considered normal. But the escape of little fluid does not go against C.S. fever as in these cases there may be blockage of Foramen magnum and no fluid may be running into the spinal canal. When the flow diminishes you can apply the stillette now and then as blood clots sometimes block the calibre of the needle. When the flow stops it should at once be closed by applying the stillette for fear of getting in air. Now the serum is taken into the syringe and injected through the needle very gently, taking at least half to one minute for every cc. injected. This operation is so easy that when once attempted every one of us will take the opportunity of attempting it in all doubtful cases for diagnostic purposes at least. You need not lose your confidence. If you do it earnestly there is no other go than to succeed. And as there are no vital organs to come across during our manipulations there is no danger of causing serious injuries. Side by side you must also have a clear conception of your anatomy before attempting anything. This lumbar puncture is very important in itself and may save life. The golden rules about the technique are:—Work by touch more than by sight. Steady skin with thumb and use rather blunt needle. Safe to puncture in the 2nd, 3rd and 4th lumbar spaces.

Indian Pharmacopea, when countries less populous and poorer in their resources of wealth of the vegetable kingdom have their own recognized Pharmacopeas. So late as 1857, the Indian Government had made a serious effort in that direction but for reasons not known to us that effort was discontinued, and to-day we see only an Indian addendum of British Pharmacopea, containing the names of a few indigenous drugs only. Indians are often condemned as wanting in research, intellect and in that special training which is a necessary qualification for the accomplishment of research work. But the recent Bombay science congress has amply proved what Indians are capable of doing in the field of scientific research in its different branches, if they are given opportunities. We see examples of voluntary efforts made by enlightened Indians to investigate the properties, both pharmacological and therapeutical, of some vegetable (Indigenous) drugs, but except in the case of some properly organised and equipped laboratories the work turned out by them is very insignificant. People have of late been trying to revive the old science, the science which has served and is still serving their needs, but their efforts have mostly been not encouraging. They have been supplying the requisite funds for the encouragement and growth of the science, but unfortunately the recipients of such aid are men with little or no education—Vaidas or Hakims. It is a pity that the people still believe that if the Ayurvedic Science is at all revived, it will only be through the efforts of these self styled Hakims or Vaidas. But they hardly know that the task of placing the science on a sound and scientific basis can never be accomplished by these Vaidas or Hakims. If the science contains anything worth investigating, a systematic study together with the compilation and publication of its results, which involves voluminous and laborious task, should be left to qualified medical men. A careful and systematic study of the old science with a view to find out what is best and acceptable in it to suit our modern requirements is not the work of a person of modest attainments, much less that of half-educated men of the type of the old Hakims or Vaidas, who have got

their own fads or dogmas to which they cling and which they can never be prevailed upon to give up. We mean no offence to these otherwise honest people, but we believe that these people are really incapable of doing any original work or presenting the old matter in a way acceptable to the scientific men. We wish that philanthropists who have been helping the movement with funds would help only honest workers. Dr. Sumant Mehta of Baroda Medical Service, by his careful and penetrating study, has intelligently interpreted the Vat, Kaph and Pitta theories, on which the whole fabric of the Ayurvedic science is woven. Similarly Dr. Hemchadrasen of the Campbell Medical School, has done a life work, by investigating the properties of Bhilama and Luffa Amara and some other vegetable drugs. His work does not merely consist of translation of the original vernacular therapeutics which is copied from book to book and rendered into jaw-breaking Latin names of drugs, thus making it more and more difficult to follow. But he has studied the pharmacology and therapeutics with scientific accuracy of the drugs, on which he writes with the authority of an observer and a scientific experimenter. It seems the work of research started by him in the Campbell Medical school has been kept up by Dr. Chatterji, Teacher of Surgery in the said Medical School. He has investigated the medicinal properties of the well known Nim Tree. The use of the Nim, with all its various parts such as roots, bark, leaves, tender branches, fruits and the oil is as old as the Ayurvedic science itself. But Bhavmishra, the renowned editor of the Bhavprakash was the first to use the Nim—both internally and externally in all the stages of syphilis. The Indian writers are so very extravagant and unguarded in writing the therapeutics of drugs that it is very difficult to know how far they are precise in assigning certain properties to a particular drug. These drugs are prescribed and recommended in so many varied diseases that one cannot easily make out what they really mean. If one were to read the therapeutics of a drug, he will be surprised to see it recommended

as a specific in various diseases. However we do not deny the learned physician credit which is due to him. But the credit of finding out the active principle of Nim and its use both internally and externally for the treatment of syphilis and other skin diseases goes to Drs. Chatterjee and Roy. Seeing the very good results following the use of its decoction from the leaves and the oil expressed from the seeds in syphilis and septic ulcers, Dr. Chatterjee requested Mr. Chatopadhyay, of the Bengal Chemical and Pharmaceutical works to prepare an active principle from the oil. The talented chemist acting upon the suggestion of his friend turned out a product which he called Margosic Acid, which is a mixture of fatty acids of the oil. Afterwards he prepared different salts of the acid such as Calcium, Zinc, Potassium and Sodium Margosates. The Calcium and Zinc salts were used in the form of powder and ointment in ulcers, simple and syphilitic, tuberculous sinuses, scabies, ringworm, eczema, psoriasis and in the cases of acute and chronic sepsis caused by pyogenic organisms—staphylococci, streptococci with good results. The acid and its salts have strongly anti-bacterial and anti-protozoal properties. The external use of the drug was so satisfactory that he was tempted to try the drug internally, but carefully and cautiously, first on himself and then on his friends, and when he was convinced that the drug was harmless, he injected Soda Margosate in doses, varying from 0.1 Gm. to 0.25 Gm. subcutaneously, intramuscularly, and intravenously in primary, secondary and tertiary syphilis. The results were very striking. It does good in all the stages, but the effect was more pronounced in tertiary manifestations because of mixed infection caused by pyogenic organisms. In skin diseases and in all other diseases for which it is used a small dose of injection was given, with local application. He concludes: "In margosic acid and its salts the medical profession will find a powerful therapeutic agent which can be used in combating infections of diverse nature".

The preparations.

Uses.

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|---|---|
| 1. A sterilized decoction of Nim bark, prepared by boiling 8 ounces in a pint of water for two hours. | Used for septic ulcers and gummatous ulcers. |
| 2. A sterilized oil of Nim seeds. | Sloughing ulcers. |
| 3. Zinc margosate ointment, 1 in 8. | As a plaster or dressing in ulcers-septic, syphilitic tubercular sinuses, skin diseases—scabies, ringworm, eczema, necrosis of the bones, cellulitis. |
| 4. Ointment of margosic acid in lanoline or Vaseline 1 in 24. | Has a rubefacient action. Used as an application in cases of arthritis. |
| 5. Zinc margosate 1 part, lanoline 4, Glycerine Amylin 4 | Used as a plaster in septic ulcers. |

The only soluble salt is soda margosate, which is used internally. Calcium and Zinc salts are used only externally.

X RAYS IN THE EARLY TUBERCULOSIS OF THE LUNGS.

BY

MR. JWALAPRASAD L. M. P. (U. P. MEDICAL DEPT).

In the early stages of tubercular disease of the lungs examination by X rays is frequently valuable when the physical signs cannot be said to be conclusive, *e.g.*, when the focus is not superficial enough. The examination is carried out in two ways:—I. By screen examination and II. By a radiogram.

1. *Screen Examination*:—For this purpose a fairly soft tube below the couch and a good fluorescent screen are necessary. The screen should be kept opposite to the patient's back to facilitate a thorough examination of the lungs, especially the apices. The following appearances will be noticed:—

- (a) *Median shadow caused by the Spine, Sternum etc.*
- (b) *Shadow of the ribs*: In the early stage of the disease no definite changes will be noticed, but in a well

Read before the Bombay Branch Association.

marked case diminished movements of the ribs owing to lack of expansion of the diseased lung, diminished normal curvature and, at times, almost overlapping of the ribs (roof tile chest) will be generally noticed.

(c) *Light area on each side of the median shadow corresponding to the lungs*:—In the early stages will be noticed (1) limited patches of diminished transradiancy on both sides of the median shadow due to enlarged mediastinal or bronchial glands or to the fact that the disease has attacked only the central substance of the lungs, *i.e.*, the disease has not yet approached the surface of the lungs to show any physical signs, (2) Irregular shadows at the apices of the lungs and (3) faint patchy shading owing to the formation of tubercles in areas which are normally clear. In later stages however, these appearances will be noticed in less involved areas, whilst dense patches of varying degrees corresponding to calcified or caseous patches will be seen in fairly well advanced areas.

(d) *Diaphragm shadow at the bottom of the thorax*:—This is known as diaphragm shadow though it is effected by the upper convexity of the liver. Normally it is a little higher on the right side. In ordinary respirations its movements are equal on both the sides, amounting to about $\frac{3}{4}$ of an inch. In early stages of pulmonary tuberculosis, the movements of the diaphragm will be seen to be unequal, restricted and jerky. In later stages, the movements are almost nil, *e.g.*, in Fibrosis of the Lungs.

II. *Examination by Radiogram*:—Excepting the diaphragmatic movements, the other appearances, as described above under screen examination, will generally be confirmed in a radiogram. It is not safe to trust screen examination alone as it is a hasty procedure.

General remarks:—It should be borne in mind that some of the appearances described above may be seen in other diseases of the lungs, the faint shadows at the apices of the lungs may be due to simple lack of expansion in ordinary respiration. Therefore, the appearances shown by the X rays should always be considered along with the available clinical signs and symptoms.

During June 1919, 12 cases were examined and the following appearances were noticed:—areas of mottling owing to formation of tubercles, shadow of enlarged glands, irregular shadows at the apices and inequality of diaphragmatic movements. Physical signs and the symptoms confirmed the diagnosis, though sputum was positive for T. B. in two cases only.

Our Contemporaries.

ECLAMPSIA: ITS PREVENTION AND TREATMENT

BY

A. LAPTHORN SMITH, B.A., M.D., M.R.C.S. ENG.,

Formerly Surgeon-in-Chief of the Samaritan Hospital for Women, Montreal, and
Professor of diseases of women and abdominal surgery in Bishop's University,
and at the University of Vermont at Burlington.

ECLAMPSIA, in my opinion, is a preventable disease, and one which in a few years, like many others equally fatal, might be made entirely to disappear. To show how this may be done is the main object of this article. In the meantime I believe that a great many of the lives which are now lost by the wait and see method of treatment might almost all be saved by a policy of prompt action. What this action should be is the second object of this paper. Most of what I am about to say is generally well known to specialists in this department of our art, but unless the views I am about to express are generally adopted and carried out by the rank and file of the profession who are engaged in general practice, and who are the first to

Prevention.

As the success of the preventive measures depends entirely upon their early application, how can we detect the cases which are going to be eclamptic ones in time to head the convulsive stage off, so to speak, and carry the woman on to full time without ever allowing sufficient of the toxic material to accumulate in her blood to cause an eclamptic explosion? The means of making an early diagnosis is well known—namely, to make an examination of the urine at the end of the sixth, seventh, eighth, and ninth months. If no albumin is present at any of these examinations, there is not one chance in a thousand that the woman will have puerperal convulsions. I therefore believe that the presence or absence of albumin is such a sure test that if it were carried out by every one of the thirty-five thousand doctors in practice in these isles, and if all the midwives and nurses would instruct all the women whom they were engaged to attend as to the importance of going to a doctor for examination of the urine three, two, and one months before delivery was due, practically every case would be detected in time to be treated so that convulsions would be prevented. A great many good doctors whom I have interviewed on this point have said that they had all been taught to take this precaution, but that they seldom or never took it because many of the women were not seen by them until they were called to attend them in labour or in convulsions, when, of course, it was too late to prevent the disaster. As for the woman who had engaged a midwife, the latter, it would seem, rarely if ever mentioned the subject of an examination of the urine. A general crusade carried on by thirty-five thousand doctors as well as by the highly intelligent midwives under the control of the Central Midwives Board would soon result in the mothers of the future realizing that a safe delivery is not a matter which should be left to chance, but that every precaution should be taken to place themselves under the care of a good doctor or midwife not later than the beginning of the sixth month, so that the condition of the kidneys should be ascertained. The prenatal clinics,

which are doing such good work in different parts of the country, would no doubt take this work in hand if they have not already done so. We who have the health of the nation in our charge should not rest satisfied until every woman has been trained to bring a sample of her water to her doctor not later than the end of the fifth month. This process of education should not be restricted to those married women who are actually five months pregnant, but every married woman of child-bearing age should have a minute or two spent on her in telling her that if ever she becomes pregnant, either at home or abroad, she should take this very important precaution.

Now supposing that a woman should come to us at the beginning of the sixth month or earlier or later with a small quantity of albumin in her urine, what must we do to save her from the risk of eclampsia? Supposing that this is her first pregnancy and the first time she has ever had any sign of albuminuria, it is evident that something has happened to her kidneys by reason of her pregnancy. What has happened? Some think that a toxin, normal or abnormal in character but in greater quantity than before pregnancy, has injured the tubules of the kidneys. Others think that the presence of the child and the gradually increasing bulk of the uterus is obstructing the return of venous blood from the kidneys to such an extent as to cause congestion and the beginning of inflammation or Bright's disease. It is difficult to say which are right. The mother *plus* the child might be expected to produce more of the toxins which are normally excreted by the maternal kidneys than would be produced by the mother alone. I am inclined to the view that the presence of the child and the distended uterus pressing on the large veins is the first cause, for the reason that it is the experience of all observers that the disease begins to get better almost from the moment that the uterus is emptied and the pressure on the abdominal contents is removed. Another argument in favour of the pressure theory is that eclampsia is not only more common with the first pregnancy. But very much more common still

when that first pregnancy is a twin one. The rigidity of the ever stretching abdomen in a primipara would quite explain that.

As we would not be justified in resorting to the emptying of the uterus in an early case, we must at least double or quadruple our vigilance. An examination of the urine every week would be a wise precaution. The next point which has been well established is that the amount of albumin in the urine can be greatly reduced, as well as the quantity of toxins, by a certain diet, while they are both increased by certain other articles of food. Still another point has come to be generally recognized—namely, that the toxin is either urea or one of the products of nitrogen. Abstention from fish, flesh, and fowl is at once followed by a marked decrease in albuminuria. One of my assistants, who is now professor of obstetrics and director of one of the largest maternity hospitals in the world, has practically abolished eclampsia in that district by making it widely known that he will admit pregnant woman with albuminuria to the hospital, no matter how early in their pregnancy they may be. He has assured me over and over again that without any medicine, but only by dietetic and other hygienic treatment, he has prevented all of these women from having convulsions.

A great many doctors send such cases to him from a radius of about a hundred miles, and the only conditions are that they will examine the urine for albumin not later than the end of the fifth month, and that they send the women in as soon as albumin is discovered. In order to give the women occupation, as well as for financial reasons, there is a large and thoroughly up-to-date laundry in connexion with the hospital, where hundreds of private families send their washing, so that several favourable conditions are added to the carefully chosen diet. The women are kept warm with their skin acting freely in the coldest weather, and what nitrogen they get in their diet is rendered as harmless as possible by through oxidation. The nature of their work induces them to drink large quantities of water or weak tea, by which their kidneys are

kept flushed and the poison is washed out. The severe cases are placed on an absolute milk diet until the albumin disappears. For all the others cereals and vegetables and fruit compose the bill of fare.

In private practice, as soon as albumin is detected in a pregnant woman's urine in a slight amount, we can instruct her to dress warmly and to avoid cold and wet. We can teach her to drink larger quantities of water, and, if she can afford it, to give the preference to alkaline mineral waters such as Vichy, of which she should use not less than a bottle a day. If anaemic, we must give her mild preparations of iron to make up for the cutting down of her allowance of meat, although she may continue with fish as long as the albumin is lessening or absent. As there is generally a condition of acetonuria, or at least a lessening of the alkalinity of the blood, we must give alkalis, a very useful one being the ordinary mist, *rhei et sodae* suitably flavoured and disguised. It has the advantage of being gently laxative, an important part of the treatment being to see that the intestines do all their own work and help the kidneys a little as well. With regard to exercise, this helps perspiration and should be encouraged either as work in the house or as walking out of doors: preferably the latter when the weather is warm.

Although all will probably agree that it is important to dilute the urine as quickly as possible if it is scanty and concentrated when the patient first comes under our notice, yet it is not always easy to get the patient to drink enough and quickly enough. Some years ago a woman made her first visit to the writer at the end of the fifth month. On boiling a catheter specimen the contents became solid in the test tube, so that the latter could be turned upside down without any running out. The patient was immediately put to bed and given copious draughts of lemonade and other things, the foot of the bed was raised, and she was given a continuous rectal enema of normal salt solution. There was a little increase in secretion of urine, but a few hours after she was first seen a

convulsion came on. For this she received a hypodermic of morphine, half a grain. Almost immediately she began to pass water, and a few hours later she was delivered of a small dead fetus of about five months without a second convulsion. After the delivery she was put on large doses of soda bicarb., and in less than a month the albumin had completely disappeared.

If a woman comes to us with a specimen of her water for the first time at the beginning of the sixth month and we find instead of a trace of albumin a very considerable amount, our activity must be great in proportion to the albumin. She should go to bed and be put on an absolute milk diet. When a patient suffering from albuminuria has been on a milk diet for one week she will almost certainly escape a convulsion. But an absolute milk diet is rarely necessary for the whole period of the remaining months of pregnancy. Sometimes a week or two of milk diet, followed by the other dietetic and hygienic measures will suffice to reduce the quantity of albumin to a comparatively safe amount. By examining a specimen every week one will soon perceive that the condition is improving. In that case we may safely extend the diet to milk foods or cereals with a large proportion of milk. Such, for instance, as purees made by boiling either potatoes, tomatoes, beans, peas, or artichokes until they are soft enough to pass through a colander and then mixed with sufficient hot milk to make it the consistence of cream. When flavoured with salt these purees are appetizing as well as nourishing, and as a full soup plate measures just a pint this is a good way of getting down liquids. Boiled rice and blancmange with fruit or jam are eaten with milk, and this later supplies phosphates for the baby.

When we are hesitating about interrupting the pregnancy we must keep in mind the danger of injury to the brain. Quite a number of cases of paralysis are on record, and I have seen two myself due to brain lesions during the first convulsion. Some die in a few months, while others drag on a miserable existence, all of which could have been saved by following the rule to empty the uterus quickly.

Treatment.

Certain drugs that have been recommended I will mention only to condemn. At one time it was thought that veratrum viride would benefit every case, and two cases, in which I gave full doses hypodermically until the high tension of the pulse came down, recovered. But veratrum viride, by lowering the arterial tension, may bring about a condition akin to shock, so that the woman is in a bad condition to undergo any surgical procedure. Venesection should be abandoned for the same reason, and also because, though the woman may be congested in the face during the convulsions she is pale between them, and very often there is general anaemia as well as anaemia of the brain. Chloral hydrate has been responsible for more deaths than is generally supposed, and chloroform I would forbid, being heartily in accord with the Mayos, who never allow it in their clinic. Ether lessens shock. There is no objection to bromides either by the mouth or rectum, but they are not curative, since they merely quiet the nervous system without removing the cause of the convulsions.

There are other procedures, however, which cannot be too highly recommended; and the first of these is a hypodermic of morphine. I have generally given just the one injection, the dose being one-half grain with one hundredth of atropine. I cannot recollect a case in which a convulsion occurred after this had time to take effect. Many writers have objected to the use of morphine on the ground that it is likely to stop the secretion of urine. This may be true in normal conditions, but it is quite different in the condition of eclampsia. Here the secretions are already stopped, because there is a poison in the blood which has set up such a spasm in the arterioles, that the blood cannot get into the kidneys to be purified. Neither can it get into the arterioles of the brain, so that portions of it at least are anaemic, as in chorea. A full hypodermic dose of morphine will not only arrest the convulsions, but it will be almost immediately followed by the secretion of urine in comparatively large quantities.

If there is not enough water in the blood to flush out the kidneys we must promptly supply it by the mouth if the patient is conscious; otherwise, by the rectum. This may best be done by the slow continuous method, which consists in raising the foot of the bed on two kitchen chairs, each foot resting in the centre of a chair, and then laying a rubber fountain syringe on the foot of the mattress, so that the reservoir is only a few inches higher than the rectum. This part of the bowel is capable of absorbing enormous quantities of normal salt solution, on the one condition that it enters slowly and under low pressure. If administered from a reservoir a few feet high the rectum will rebel and expel it. While in charge of a hospital in France I made frequent use of this method with the most gratifying results, and for many years before that I have employed it to prevent shock during and after severe abdominal operations. I cannot too strongly emphasize these two points. In every case since I have given morphine and administered water by the rectum the albumin has promptly disappeared from the urine the colour and quantity of which has quickly improved. The water goes in clear and comes out loaded.

If after having done these things a convulsion comes on, all are agreed that there must be no further delay. The child must be delivered as quickly as possible with the smallest possible amount of trauma and shock. The dilatation of the cervix with Bossi's dilator, or any other procedure included under the term of *accouchement force*, must be discarded. If the os is dilatable, an attempt may be made gently to dilate it with the hand, but on the one condition of absolute asepsis, as though it were an abdominal operation, which may, indeed, become necessary a few minutes later, the success of the operation of Caesarean section depends on the uterus being aseptic. Rubber gloves must be used. If the child cannot be delivered with forceps in a few minutes, without tearing the cervix and without violent efforts, it is far better not to continue the attempt. We have another means of terminating the pregnancy which is unaccompanied by shock. Some think that if the child is dead or will die soon after birth

as many infants of eclamptic mothers do, we should break up the child by craniotomy, whether living or dead. I totally disagree. There are others who have advocated vaginal hysterotomy, which consists in cutting through the undilated cervix and delivering with forceps. But this means extensive tearing and bruising and much shock, and for this reason I am opposed to it. If the child cannot be delivered quickly, aseptically, and without injury to the uterus and soft parts, it is better to abandon the vaginal route altogether and at once, and resort to that method of delivery in which shock and sepsis and mortality for the mother are reduced almost to the vanishing point, the average for good operators being about 3 per cent., although there has been at least one run of a hundred cases without a death. This method is Caesarean section by the abdomen. At the same time by this method the chances for the child's life are very greatly increased, for its journey from the womb to independent life occupies only a few seconds, and absolutely without the hardships of the natural process. With an ever-increasing number of teachers, I maintain that in a certain class of cases it is the only thing to do, and it should be done promptly before any vaginal manipulation. If the eclamptic woman is a primipara, or if she has a long rigid cervix, if the child is viable, if she is near term, in such cases delivery by the vagina owing to the trauma of dilatation, coupled with the shock of the long tedious labour and the risk of infection to which eclamptic patients are especially liable, is much more dangerous than Caesarean section.

Summary.

I may sum up as follows:

1. Do not fail to prevent eclampsia.
2. Do not fail to examine the urine at least four times at the end of each of the last four months, and if albumin is present put the patient on a milk or vegetable diet; give sodium bicarbonate and laxatives, and keep the patient warm, in bed if necessary.

3. If a convulsion occur, do not give chloral or chloroform, or veratrum viride, nor employ venesection.

4. Do not allow the pregnancy to continue when it is known that brain and kidneys are being irreparably damaged.

5. Do not forget that *accouchement force*, vaginal Caesarean section, and craniotomy, in the interests of the mother as well as of the child, are no longer justifiable.

6. Do not forget that abdominal Caesarean section performed by an experienced operator is one of the safest operations in surgery for the mother, and that it enormously increases the chances for the child if performed after the end of the seventh month when the child is viable. In one of the latest works on obstetrics D. Lees says that a well known operator had reported 550 cases of eclampsia operated on within one hour of the first convulsion without a single death.

7. Do not forget that the best time to operate is before labour begins and before the woman has been examined by an ungloved hand. The few deaths which now occur are due to infections of the uterus.

8. Do not look upon eclampsia as a one man case. There must be three doctors and a good trained nurse if every case is to be saved. If the proper conditions cannot be obtained at her home, it is better to send her to a good obstetric surgeon at a good hospital.—[*B. M. J. July, 1919.*]

PROCEEDINGS OF THE BRANCH MEETINGS.

ASSAM VALLEY BRANCH, DIBRUGARH—12th April 1919—11 members were present, including the Chairman Mr. D. C. K. Gupta.

The following resolutions were passed:—1. That an Executive Committee be formed with the following as members thereof—Mr. U. C. Mukherjee—President. Mr. M. C. Chakravarty—Vice-President. Mr. C. K. Gupta—Vice-President. Mr. H. Ali—Secretary. Mr. U. C. Das—Joint Secretary—2. That Col. E. C. Meleod, Superintendent, B. W. Medical School, Dibrugarh and that Dr. F. C. McCombie, M.D., Medical Officer Chabria circle Tea Estates be approached to become the patrons of the Association.

3. That a second meeting be held to confirm the above resolutions and discuss about subscriptions, donations, place of meeting, printing circulars for information of other Sub-Asst. Surgeons in the village, etc.

With a vote of thanks to the chair, the meeting terminated.

BOMBAY BRANCH, 13th July 1919—13 members were present, including Mr. Shankar Kanoji, who was in the chair.

(1) Mr. G. B. Parulekar L.C.P.S. read the notes of a case of influenza with meningeal symptoms verified by post mortem examination.

(2) Mr. Jwalaprasad read the notes of a case of "Syphilitic fever". The patient, aged 25, had an attack of Broncho-pneumonia from 15th May to 8th June 1919; patient keeping up remittent temperature from 18th June 1919; Widal for T. A. and B negative. An ulcer in the anal margin was detected and his Wasserman was + + +; he was very weak and an old scar was seen on his penis; he was still under treatment.

(3) Mr. A. Muthusamy read the notes of the following surgical cases with permission.

(1) Dysenteric ulcer of rectum, appendicostomy was done; patient died after 5 months—The specimen also was shown.

(2) Small round-celled sarcoma of jejunum mistaken in life for cancer of liver.

(3) Vesical calculus removed by supra-pubic cystotomy under local anaesthesia of $\frac{1}{2}$ % Beta-Eucain Solution (with specimen).

(4) Stone in the fossa-navicularis impacted for a month removed by incision.

(5) Laue's plating of middle of left ulna and lower third of right tibia for non-union with X ray plates.

(6) A case of Bubonocoele operated under local anaesthesia for recurrence after 11 months.

(7) Double inguinal hernia under local anaesthesia; recurrence after a year. On opening the sac turbid fluid came out. The sac was studded with gelatinous granulations which, on pathological examination were found to be tubercular.

(8) Mr. N. S. Narasimha Iyer read an interesting paper on "The origin and principles of Orthopaedics" with illustrations and certain splints.

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[No. 8.]

THE JAIL COMMISSION.

AFTER all, the long hoped for Jail Commission has come into existence and probably also commenced its labours. Although we are not in a position to discuss about the personnel of the commission we are glad to find that it is headed by that distinguished and veteran member of the Indian Civil Service, Sir Alexander Gordon Cardew, whose varied experience as Inspector-General of Prisons, as compiler of the Jail Manual, as Collector and District Magistrate, as Secretary to Government and finally as member of the Executive Council of H. E. the Governor of Madras will serve him in good stead in handling the various knotty problems that may crop up before the commission.

There are probably no two departments of Government which are so closely linked together as the Jail and the Medical Departments, and yet it is a career in the Jail Department that the Sub-Assistant Surgeon regards as one of regrets, pitfalls, humiliation and wretchedness. In fact no Sub-Assistant Surgeon who has seen service in a Jail has a good word to say either about his relations with the Jailer and his staff or about the conditions of Jail service. We will therefore be doing our bare duty in laying before this commission the main grievances and disabilities of the hundreds of Sub-Assistant Surgeons who happen to be serving in the various Jails in the country.

On a careful examination of the complaints that have come to our notice from time to time we find that the main grievances of Sub-Assistant Surgeons on Jail duty are (1) their subordination to the Jailer, a non-professional man who rises to this position not by any superior educational or technical qualifications but only by long service in the department (2) Night duty (3) Inadequate Jail allowance and (4) Liability to a bodily search every time he enters the Jail.

In a Jail, the responsibility of maintaining discipline and order devolves on the Jailer and his staff while that of guarding the health of the prisoners and sanitation of the premises devolves on the Sub-Assistant Surgeon. In addition to his legitimate duties of attending to the sick, vaccination, plague inoculation, passing of the health and rations of prisoners and guarding the sanitation of the premises, the Sub-Assistant Surgeon is also expected to watch and bring to the notice of the Medical Officer instances, if any, of infringement of the rules for the maintenance of the health of prisoners, such as inaccurate weighing or distribution of food, excess or shortage in the quantity of important articles of food issued, unpunctuality in, or curtailment of, meals, unsuitable, worn out or dirty clothing and bedding, undue exposure of prisoners to wet or sun and unsuitable tasks, especially in the case of men of poor physique. A conscientious performance of these multifarious and very important duties would involve a fearless exposure of the irregularities and malpractices, if any, of the Jailer and his staff, but in his anomalous position of subordination to the Jailer the Sub-Assistant Surgeon cannot disclose these irregularities without offending the dignity, and incurring the wrath, of the Jailer, the all powerful being that reigns the premises of the Jail.

Suppose the Sub-Assistant Surgeon, on inspecting the cooking utensils and vegetables, finds the former unclean and the latter rotten and, in spite of his anomalous position, makes bold to record his observations, what will be the result? He will soon find himself in deadlock with the Jailer, and elements will not be wanting to fan the flames. The powerful Jailer, backed by his interested staff, generally manages to turn the tables against the solitary medical subordinate, and truth is thus vanquished by misplaced power. There is of course the Superintendent holding the reins of administration but it is rarely that he bothers himself with such details, which he as a rule leaves to his immediate subordinate, the Jailer. No wonder therefore the unfortunate medical subordinate finds himself between the horns of a dilemma, his enthusiasm and energy are quickly choked up and he often finds it expedient in the circumstances to be as uninterfering as possible and be waiting for the earliest opportunity to get away from Jail service. Such abject prostration of the honour and dignity of the noble profession of medicine at the feet of the Jail staff is unthinkable and revolting to the traditions of the profession as a whole.

Coming to the question of night duty, the medical subordinate is required to be present at the Jail during nights in order to render immediate medical aid in cases of urgency. As matters stand at present, immediately after dusk all the wards are locked up and the Jailer retires to his quarters. Ordinarily, the only way in which the medical subordinate can afford any medical relief necessary during nights is to hand medicines through the grated openings in the flickering light, in which he cannot even observe the patient properly. In urgent cases, however, where an immediate

and thorough examination of the patient is considered necessary and it would not do to hand medicines through the grated openings, the Jailer with his posse of warders has to be sent for and the door of the ward opened. But the dignified Jailer is intolerant of any disturbance to his well-earned nocturnal sleep and it is with no little reluctance and ill-temper that he responds to the call. In his rage he sits in judgment over the medical subordinate and accuses him of having unnecessarily and vexatiously caused the opening of the ward. Of course all is well that ends well, but suppose the medical subordinate, being afraid of disturbing the sleeping Jailer, contented himself by doing all he could through the grated openings and the case unfortunately got worse, what would be the fate of the medical man? The very same Jailer who would fall foul when disturbed in the night would be the first to make a scape goat of the weak medical man. Thus even here the position of the medical subordinate is extremely irksome. We are also informed that in some provinces the working hours unduly encroach upon the few hours of leisure which the medical subordinate is entitled to. In the Rangoon Jail, we are told, the medical subordinate on night duty has to take his bed in a room just opposite to the tubercle ward and directly on the ground floor of the medical ward. In Insein, the dysentery patients are accommodated in the room adjoining the 'duty room' and the medical subordinate has to inhale the offensive odours of specimen stools arranged by his side.

As regards the Jail allowance, it is but a miserable pittance when compared to the heavy sacrifice which Jail service entails. In the first place the medical subordinate is strictly prohibited from having private practice. And then his duties are so exacting and entail such

prolonged stay in the Jail premises that he has to deny to himself even ordinary recreation so necessary for his well-being. Nor can he afford to have better comforts, because that would involve a large expenditure which his limited income cannot permit.

One serious complaint is that the Medical Subordinate is subject to awful humiliation, because every time he enters the Jail premises his person is closely searched as though he were a person with no sense of responsibility and uprightness of conduct. This is certainly an ordeal, an awful humiliation to one in the position of a Sub-Assistant Surgeon. He is prohibited from smoking while on night duty, nor can he have at least a cup of tea or coffee or some eatables during the day while on duty. Friends and visitors received by him in his quarters are looked upon by the Jailer with suspicion and provokingly interrogated more for the sake of humiliating the Sub-Assistant Surgeon than for any thing else.

From the foregoing facts it will be observed that Jail service is most detestable to the Sub-Assistant Surgeons and is regarded by them as a punishment. Really efficient service cannot be got from a body of men who are nursing a grievance. It is therefore imperative that there should be a thorough reorganisation of medical service in Jails. But no reform which does not contemplate the elevation of the Sub-Assistant Surgeon to a position of equality with the Jailer and adequate compensation for private practice foregone can heal the chronic heart-sore or make Jail service popular. The Jailer being a layman is incapable of calling into question the doings and recommendations of the Sub-Assistant Surgeon and should therefore loyally carry them out, unless they are countermanded by the Superior Medical Officer or by a Superintendent, belonging to the

medical profession. The Sub-Assistant Surgeon's discretion in the matter of summoning the Jailer during nights in case of urgency should be unfettered and the Jailer should have no voice in the matter but to implicitly respond to the call. The Jail allowance should be at least as much as the grade pay of the Sub-Assistant Surgeon. The humiliating rule submitting the S. A. S. to a bodily search and requiring him to sleep within the Jail during nights should be deleted. Like the Jailer the Sub-Assistant Surgeon should also be allowed to spend the night in his quarters, which are generally not farther away than those of the Jailer. Both should of course be ready to attend to urgent cases occurring during nights. The medical man can do practically nothing unless the ward is opened, and the ward cannot be opened except by the Jailer. Thus the rule requiring the medical man to sleep within the Jail during the night and excusing the Jailer from it is meaningless. Either both should be required to sleep within the Jail or both excused from that ordeal. We have made our proposals as modest as possible and with due regard to the traditions and dignity of our profession, and leave the case in the hands of the Commission, which, we hope, will view it sympathetically and generously.

Day after day complaints of non-receipt of the journal are pouring in in the offices of the General Secretary and the Editor. Among the various causes, which are being gradually removed, the main one is that the addresses of members recorded in the books of the Editor are in many cases either incorrect or defective. Every month from 50 to 100 journals are returned by the Dead Letter Office either because the addressees could not be traced or because the addresses are defective. It has also been found impossible to promptly attend to complaints, because in many cases the signatures are illegible

and roll numbers are not quoted. Members who have not received the Journals are therefore requested to intimate to the Editor and to the General Secretary their correct addresses and roll numbers. The work of the Editor will be considerably facilitated if those who have complaints to make will be good enough to write their names, roll number, station, post office and District in a legible manner.

Owing to some technical difficulties we are unable to promptly realise the subscriptions due for the current year from members who are on military duty outside India. Such of them as have not paid their subscriptions for the current year are specially requested to send their remittances direct to Mr. Rochiram A. Amesur, Honorary Treasurer, All India S. A. S. Association, 9 Rampart Row, Karachi.

While the several Provincial Governments and Administrations in India have already revised or are revising the scale of pay of Sub-Assistant Surgeons it is rather unfortunate that the Government of Burma has not yet made any encouraging and definite pronouncement regarding this urgent matter. The scale in force there was fixed more than a quarter of a century ago when the cost of living was but a third of what it is at present. It is said that some of our men there finding it impossible to keep body and soul together with their meagre pay had to find other means of supplementing their pay, such as keeping and breeding of fowl. We once more respectfully draw the attention of the Government of Burma to the miserable condition of our brethren there and earnestly request them to take very early steps to grant the relief prayed for in the memorials submitted to them from time to time.

We understand that the Mysore Durbar have recently enhanced the initial pay of their Sub-Assistant Surgeons by Rs. 10. While we thank the Durbar for this act of justice and generosity we cannot but give expression to the disappointment caused to the Sub-Assistant Surgeons in the higher grades

whose claims for better pay especially on the ground of long and faithful service and exorbitant cost of living, appear to have been coolly brushed aside. Any amount spent on this most useful class of medical men, men who carry medical relief to the nooks and corners of the country, is well spent and will secure their contentment and efficiency. We hope that the Durbar will reconsider the question in the light of these facts and do justice to these disappointed men.

In a previous issue we thanked the Government for granting commissioned ranks to Sub-Assistant Surgeons in military employ. We have now another occasion for expressing our gratitude, and that is the grant of gratuity to those who have served in the war, including the members of our class. A Subedar is to get a gratuity of Rs. 5 and a Jamadar Rs. 4 per month. We are however pained to learn that Sub-Assistant Surgeons of less than 5 years service, who are ranked only as 'warrant officers,' are classed with ordinary sepoy for purposes of this gratuity. Do the Government still consider that a tolerably good general education with four years training in a Medical school can lead to nothing more than the status of a mere sepoy? The question has to be viewed not so much from the monetary point as from the point of the dignity of the profession. We hope that better counsels will prevail and the grievance redressed as early as practicable.

In continuation of the announcement regarding the ensuing conference we are asked by the Provincial Secretary, Poona, to publish the following list of donations towards the expenses of the conference.

			RS.
1.	Mr. N. M. Dhondo Mahadev	...	100
2.	„ D. M. Makashir	...	30
3.	„ N. M. Pandit*...	...	40*
4.	„ D. R. Marathi	...	10*

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5. Mr. D. G. Mahajan	...	...Rs. 30
6. „ V. L. Dhosi	...	... 5*
7. „ A. B. Rajurkar	...	... 30
8. „ P. R. Dhavale	...	... 30
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10. „ B. P. Godbole	...	... 30
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15. „ D. V. Karnik	...	... 10
16. „ C. K. Patel	...	... 5
17. „ V. P. Vagale	...	... 15
18. „ Malase	...	... 15

On behalf of the All-India Sub-Assistant Surgeons' Association the General Secretary begs to acknowledge with thanks the receipt of the sum of Rs. 200 contributed towards the funds of the Association by the Bengal Conference Committee.

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KALA-AZAR

By

MR. BIRAJ MOHAN DAS GUPTA, Sub-Assistant Surgeon,
 Pasteur Institute, Shillong.

KALA-AZAR is a general infectious disease characterised by its chronic course, marked splenic enlargement, progressive anaemia and leucopenia. This is due to a protozoon, *L. Donovanii*.

Synonyms.—Dum-Dum fever, Tropical Splenomegaly and Black-fever.

History.—In 1869, the British medical authorities in India were familiar with a fatal disease among the people of Assam and they regarded it as a very malignant form of malaria.

In 1889, Giles investigated the disease and, finding hook-worm ova in almost all the cases, came to the conclusion that it was ankylostomiasis. Rogers, in 1896, was of opinion that K.A. had to do with malaria. Ross, in 1898, regarded it as malaria plus some secondary infection. Bentley, in 1902, claimed that it was a malignant form of Malta fever because the temperature chart in both these diseases was to a certain extent similar and serum from K.A. patients agglutinated some strains of *M. Melitensis*. But these strains proved to be auto-agglutinating. In 1903, Manson gave his opinion against malarial aetiology owing to the absence of malarial parasites and its non-response to quinine and suggested that the disease might be caused by a trypanosome. A few months later

Leishman reported the finding of a degenerated parasite in the spleen tissue of a soldier who died of Dum-Dum fever.

In July 1903, Donovan reported that he had found a similar parasite in material from spleen puncture of a case taken during life. The year 1903, is thus a memorable one in the history of Kala-Azar and the credit of its discovery and ætiology is ascribed to Leishman and Donovan. Hence the term *Leishmania-Donovani*.

Symptoms.—The onset is very variable. The fever is usually of a low remittent type showing double, even triple, rise during 24 hours. The patient shows a striking absence of typhoid apathy and states that he feels well when the temperature is 104° F. This remittent type of fever lasts for about 2 to 6 weeks. Then comes a period of apyrexia and apparent improvement. This is followed by waves of further fever and apyrexia and so on. Sometimes there is a history of daily rigors so that malaria is suspected. The spleen begins to enlarge early in the disease and reaches the level of the umbilicus by the third month. The liver as a rule does not enlarge before the 5th month. Leucopenia is marked. There may be only 2000 leucocytes per c.m.m. of blood. Rogers considers the finding of one white corpuscle to 1000 R.B. Cs. is very characteristic of K.A. The marked leucopenia with decrease of polymorpho nuclears makes the patient susceptible to septic infection and pneumonia. These complications generally bring on a fatal termination so that we do not always get typical cachexia, brittle hair, petechiae, œdema and ascitis, etc. There is a very marked increase of large mononuclears. Knowles is of opinion that a count of over 20 per cent. large mononuclears, polymorphs under 50 per cent. and absence of malarial parasites are rather characteristic of the disease. Diarrhoea and dysentery due to internal ulceration are generally noted at the end.

Diagnosis (clinical).—Malaria may be differentiated by its periodicity, response to quinine and presence of malarial parasite in the blood., Malta, by its absence of marked splenic enlargement, its characteristic neuralgic manifestations, joint

swellings, bronchial catarrh, etc., Typhoid and para-typhoids by the presence of continued fever, absence of double rise and marked apathy and Ankylostomiasis by the presence of ova in the stool and marked eosinophilia.

Laboratory Diagnosis.—Peripheral blood films with a good leucocyte edge should always be searched first for L. D. bodies. As a rule the parasites are very scanty and far between and rarely does one find more than one parasite containing leucocyte to a slide. Failing to find parasites in the peripheral blood one should have recourse to spleen puncture. The operation is simple and hardly risky if the contraindications are excluded.

Contra Indications—1. *Decreased coagulability of blood.*—Coagulation time should always be ascertained prior to spleen puncture; if it exceed 4½ minutes spleen puncture should not be attempted. Calcium chloride is always given before and after spleen puncture to increase coagulability of blood.

2. *Splenic Leukaemia.*—In this condition the spleen becomes very friable and liable to rupture. This can be differentiated by peripheral blood puncture.

3. Jaundice contraindicates spleen puncture on account of delayed coagulation in this condition.

Culture of spleen material on N.N.N. medium ensures a more delicate test. This is a medium containing agar, salt and water to which ½ its volume of rabbit's blood obtained by cardiac puncture is added. Flagellate forms develop after a week. Strict asepsis is essential. Any slight bacterial contamination kills the flagellates. But *Leishmania tropica* which is morphologically the same as *L. Donovan* grows in presence of bacteria and its development is rather favoured by staphylococcal symbiosis.

The optimum temperature for the growth of flagellates is 22°C. and they soon die out if placed in a warm incubator. Row's method of cultivating L.D. bodies from peripheral blood is as follows:—He takes a little blood by pricking a finger or preferably by vene-puncture into citrated saline and the mixture is

centrifuged. Centrifuged deposit is inoculated on N.N.N. medium and the growth of flagellate obtained within 6 or 7 days. But this method did not prove very satisfactory in our hands.

Treatment.—Metallic antimony and its various salts are now in use. Here we treat our patients by intravenous injection of tartar emetic which has hitherto suited all of our cases. We begin with 2 c.c. (for an adult) of 1% solution and increase the dose by one c.c. in subsequent injections (if the patient tolerate the injection well) till the maximum of 18 c.c. is reached. If violent reaction takes place as shown by persistent vomiting, rigors and high fever, the next dose is decreased. The injection is continued every alternate day till 2 grammes of tartar emetic have been given over a period of 2 to 3 months. Late in treatment we increase the interval to 2 to 3 days as then the patient becomes more susceptible apparently to tartar emetic. Spleen puncture is then made (if the spleen is still puncturable) for final test and for recovery. We have never found the parasite either in direct smear or in culture after a patient has got 2 grammes of tartar emetic. Muir recommends that injections should be continued until fever has been absent for a month and then repeated once a week for two months, better still for 4 months, to prevent any relapse. In patients whose veins are fine intra-muscular injection of lithium antimonyl tartrate, aniline antimonyl tartrate or ethyl antimonyl tartrate should be tried (Brahmachary). Patient's general condition is improved by iron and nux vomica and intestinal parasites are removed by suitable remedies of which oil of chenopodium seems very good for expulsion of hook-worm.

My thanks are due to Capt. R. Knowles, I.M.S. for having kindly gone through this paper and suggesting some improvement.

AN INHALER FOR THE PREVENTION AND CURE OF INFLUENZA AND OTHER DISEASES OF THE RESPIRATORY SYSTEM.

BY

RAI SAHIB MR. RAM NARAIN.

Like other diseases of the nasal mucous membrane, larynx trachea, bronchial tubes, lungs and pleura, Influenza is also grouped among the diseases of the respiratory system. It is no uncommon disease, and since its outbreak last year in an epidemic form the public have been talking, hearing and reading so much of it that a repetition of its nature and symptoms would add nothing to the knowledge of any body. But yet it is by no means a disease which can be treated with levity, for, when it is accompanied with its varying complications we see it in its insidious character — the nose, throat, larynx trachea, bronchial tubes, lungs and pleura being the worst sufferers. Among these complications are (1) epistaxis (bleeding from the nose) (2) Haemoptesis (bleeding from the lungs) (3) nausea, (4) vomiting and (5) haemetemesis (bleeding from the stomach) and (6) melaena (bleeding from the intestines), a very trouble some one. In the course of the disease when the toxin is absorbed in the system it travels nearly in every part of the body and produces different kinds of symptoms peculiar to the organ or organs involved, at first by stimulating and then by depressing them.

The germs which spread influenza get into the system mainly through the air impregnated with them, exhalations of the patients, their sputum, saliva, nasal secretions and excretions or other excreta &c. of the body becoming the prolific sources of infection, directly or indirectly. Particles of these matters fly with the dust in the air at the time of dry sweeping of grounds, main roads, streets, sick rooms etc. or when the wind blows or the carriages and animals run along the roads. Another source of infection is that innocent looking house fly, that lover of filth which after feasting upon the contents of latrines, street drains and upon sputum and other human and

animal excreta comes and poisons our food and drink with the thousands of disease germs which stick to their horrible feet. In the recent epidemic or influenza, these germs might be taken to have been responsible in the beginning or when it was in a mild form, and streptococcus pyogenes of a virulent type later on when the disease began to assume severity.

Persons of low vitality and no power of resisting the toxin dropped down as victims to the disease.

The causes of low vitality are apparent, *i.e.*, worries, anxieties, poverty, want of proper food, change of atmospheric pressure, decomposition of animal and vegetable matters, inhalation of smokes and other injurious gases and certain weakening diseases, such as malaria, diseases of the respiratory, circulatory and digestive systems.

It is distinct that the mouth and the pharynx are the inlets for different sorts of micro-organisms and so is the nose through which colonies of them pass into the stomach and lungs. The stomach has got the gastric juice to destroy most of them and we have also means within our reach to wash or pass them out, but the case is different when the lungs become infected. The structure of the lungs is so complicated that anything entering into it cannot be easily expelled, and there is the possibility that anywhere in these passages the disease germs may lodge, multiply and produce symptoms of the disease. Although the delicacy and sensitiveness of the lungs and of their living membrane are intolerant of foreign bodies and expel them as far as possible by coughing and sneezing along with the mucous secreted and excreted, yet there are no means at hand to get rid of them as in the case of the stomach. Any medicament with which we can reach there are the vapours of mild and non-irritating volatiles (irritating and strong volatiles are likely to injure the structure and are risky) so that their particles may reach as deep as the air we breathe and kill micro-organisms, stop cultures of most of them and thus wonderfully increase immunity.

Lots of inhalers have been invented in the forms of sprays, atomisers, nebulizers, moist and dry inhalers, mechanical or chemical, and each of them has its own advantage. But some of them are complicated, others are expensive, and so their use is limited. As an experiment, a simple, cheap, perfectly harmless and useful inhaler of a cigarette size has been laid before the public to avoid the disadvantage arising from inhaling impure air mixed with the disease germs. Its usefulness as a preventive as well as a curative has been tested. This inhaler if used sufficiently early, cuts short the period of disease and prevents complications, and thus calls for no other treatment beyond rest, hygienic measures and nourishment. In complicated cases its use along with the symptomatic treatment helps a great deal in bringing cases towards recovery.

Cases of multiple patches of pneumonia were generally seen, many cases showed regular symptoms of pain as an abscess forming in the throat, trachea, bronchi at its bifurcation and sides of lungs, one by one at certain intervals. Such cases pass pus like sputum of an awful odour, and the inhaler should be used both by the patient and the medical attendant treating the case. The prognosis of such sort of cases depends on the period and extent of each organ involved; during convalescent stages, these patches show their appearance one by one and thus prolong the period of convalescence.

The advantage above all is that these inhalers can be made everywhere if instructions are given, as the ingredients are common. They can be distributed freely (being simple and so cheap) by the local bodies, municipalities and other institutions. They are useful not only in influenza but in all diseases of the respiratory system, and are a boon to surgeons and physicians while visiting cases in ill ventilated rooms and operating cases antiseptically. It avoids inhalation of impure air and exhalations of diseased or unhealthy air which is modified by the medicaments inhaled.

I quote the formula below and hope that the public as well as medical men would oblige me with information if they find it useful.

The ingredients are camphor, eucalyptol, pinol, menthol and thymol, which are too well known for their therapeutic actions and have proved an invaluable antiseptic for the respiratory tract. These ingredients are packed in such proportionate doses that the particles of each and every ingredient may act simultaneously in the atmospheric temperature when inhaled: and inhalations can be regulated according to the movements of respiration. In taking deep breath particles reach every corner of the lungs, where, under no circumstances, medicaments can reach in any other form. Inhaling through the mouth and exhaling per nose, sterilize both these openings and thus prevent diseases. A fair amount also reaches the stomach through the saliva constantly coming in contact with the vapours, which disinfect the tract of the digestive system to a certain extent and facilitate early recovery.

HOW TO PREPARE THE INHALER.—Take a piece of blotting paper of a suitable size and roll it into a cylinder, put the medicaments as suggested above in suitable proportion, say five grains and 5 minims of each solid and liquid, in separate layers, so that they may not touch each other while rolling; then close at one end by filling in a piece of fine gauze, now thrust this cylinder in a reed of suitable size, the inhaler is ready after plugging the other end loosely. Any other tube made of wood can take the place of the reed if that is easier to obtain. The reed is the cheapest, more suitable, and easily obtainable in every garden (it is a genus of grass named *arundo-donex*, largely cultivated in gardens, for the use of its ornamental leaves, and the stem is used for making pipes or some other musical instruments. In one stem about $\frac{1}{2}$ a dozen cigarette-size inhaling tubes can be made. Or take a suitable solution in alcohol of each dry ingredient separately and soak a piece of blotting paper of suitable size in each of these and also in the liquids; when alcohol has dried up take one of each and roll them into a cylinder, also of the liquid ingredients and then insert in the tube, the inhaler is ready. Or soak sawdust in saturated solutions and in liquids separately and let the alcohol

dry, plug loosely one end of the tube with fine gauze and then fill it proportionately with impregnated dust of each and lastly plug the other end loosely, the inhaler is ready. Or plug one end of the tube (the mouthpiece) through the other end of it loosely with fine gauze and then with small bits of corks for about $\frac{1}{2}$ an inch, now fill menthol, camphor, and thymol in crystal or powder, one by one, making a partition valve of saw dust to avoid mixing with each other, and then the dust impregnated with pinol and eucalyptol, finally plug the other end with gauze loosely; the inhaler is ready.

N.B.—To keep the inhalers fresh for a long time their ends should be sealed with sealing wax, which can easily be removed when they are required to be used.

Persons not willing to use the above inhalers, or unable to inhale, are advised to sprinkle the combination of all the five ingredients (which become liquid when mixed together) on their handkerchiefs, beddings about their heads and in the rooms where they live; the vapours of the above medicaments can also be inhaled along with the steam of hot water filled in a shallow dish in which the above ingredients are added.

DYSENTERY

BY

MR. P. A. NARAYANA AIYAR, L. M. P.,

Secunderabad.

THE term dysentery may be described as a form of intestinal disorder, characterised by frequency of stools containing slime and blood and associated with a varying degree of griping and tenesmus. Under this definition may be grouped a series of cases, but I shall deal with the amoebic and the bacillary varieties.

Amoebic Dysentery.—This is chiefly a disease of the tropics usually occurring in adults but not uncommon in children. The causative agent in the production of the disease is a protozoon known as "*Entamoeba histolytica*." Let me

here deal with the method of examining these organisms. Flakes of mucus from a freshly passed specimen of stools, are taken up and mixed up with a few drops of normal saline, preferably warm, and a drop of this is placed over a glass slide covered over with a cover slip. Warm saline is preferable as this method often facilitates in detecting the characteristic movement. The saline should be only warm and not hot, otherwise the amoeba readily dies. The slide is examined under a $\frac{1}{4}$ th lens with the condenser removed or lowered and the iris diaphragm practically closed.

Characters of the amoeba—It is generally many times the size of an R. B. C., about 20 or 25 times the same. The protoplasm is divided into two regions, the inner zone being known as the granular endoplasm and the outer clear zone, the ectoplasm. In the granular endoplasm may be found some vacuoles, R.B. C. ranging from 10 to 15, or even more at times, and also some bacilli ingested by the amoeba. The nuclei is very indistinct and generally cannot be made out. The peculiar feature of this is its characteristic movement, assuming all sorts of shapes. Difficulty may arise in distinguishing *Entamoeba histolytica* from amoeba coli which is so common and non-pathogenic. The presence of a distinct nucleus with no distinct zones in the protoplasm and the absence of the R. B. C. will go to show it is amoeba coli. Recently Wenyon and others have described a smaller form of pathogenic amoeba known as "*Entamoeba nana*" somewhat resembling the amoeba limax but differing from the same in not being cultivable. When the acuteness of the dysenteric symptoms subside, these amoeba assume a more resistant form known as an encysted amoeba which is characteristic of dysentery carriers. These cysts are much smaller than the amoeba coli cysts and they usually contain 2 or more nuclei with a distinct chromicidal body.

Some time back while I was examining a specimen of stools for ankylostoma ova I was surprised to find fairly numerous active entamoebae histolytica. This I quote here because the

stools were not at all dysenteric and the patient absolutely denied having had any dysentery.

I may mention here about the lamblionic form of dysentery which has been found to be very common among soldiers returning from Gallipoli. Hitherto it was considered that the lamblia intestinalis was non-pathogenic, but in the recent campaign, authors are inclined to think that they are of a pathogenic nature. I can candidly admit that I have no knowledge of this and I would thank any of you who can enlighten me on the same.

Some time back I happened to examine the pus from Pyorrhœa Alveolaris cases and I found active amoeba in many of them exactly resembling the *Entamoeba histolytica* in appearance. Whether this protozoon is an independent organism or only a stage in the development of the *entamoeba histolytica*, it remains to be proved.

Coming to the etiology of the disease, any conditions which lower the vitality of the intestines such as indigestion, exposure, etc. favour the onset of the disease, the actual exciting factor being the presence of the specific organism, which is conveyed to the intestines through our food, contaminated drinking water, milk, etc. Rats and other domestic animals have been found to harbour amoeba in their intestines and hence these little creatures should not be forgotten as a possible source of human infection.

Morbid Anatomy.—The lesions consist in the inflammation of the mucous membrane accompanied by ulceration mainly confined to the caecum and the descending colon. The ulcers are punched out, the floor of the ulcer may be formed by the muscular or even by the serous coat of the intestine. They are also often undermined. In chronic cases, the ulcers become irregular in outline with thickened edges, ulcers when healed produce cicatrization of the bowel causing obstruction of the lumen with its attendant dangers. Mesenteric glands may be inflamed and the liver is generally hyperaemic.

Symptoms.—The disease generally commences insidiously. In mild cases the patient may complain only of slight abdominal pain and occasional diarrhoea with griping in the abdomen and tenesmus. Stools contain slime and blood, gradually lose their faecal character and contain only slime and blood or blood alone at times. Tenesmus is severe with the result that the patient never likes to get away from the bed pan. The number of stools may vary from anything like 5 to 20 or 30 or even more; the patient may have to go to the closet every few minutes. Tenderness of the abdomen is present, specially marked about the right iliac fossa. In favourable cases recovery takes place in a week or so, in others death may take place or the condition may drag on to a chronic stage, which is characterised by alternating periods of constipation and diarrhoea, lasting for one or two years. During an exacerbation, the stools may contain slime and blood; some of these chronic cases terminate in sprue.

Complication.—Anything from simple inflammation to the formation of liver abscess may take place. This is a more common occurrence among Europeans who are living under adverse surroundings. Perforation of the ulcers may occur leading to peritonitis and death. Due to the ulceration of the vessel walls haemorrhage may take place. The sequelae are arthritis and nueritis.

Treatment.—This may be divided into general, dietetic, specific and symptomatic.

General.—Absolute rest in bed is essential. A general practitioner may often think that he has nothing more to do once he has given his emetine. This is not so. Even before administering his favourite emetine he must enjoin on the patient to confine himself to bed using the bed pan whenever required. Even sitting up in bed should be forbidden. This is the first and the foremost thing to be done, if we only remember the fundamental principle in the treatment of inflammation in surgery, i.e., an inflamed part must have complete physical and physiological rest. In the case of the bowels, both of

them cannot be had to the fullest extent inasmuch as the intestines are associated with the peculiar peristaltic movements and they form the media through which absorption must take place for the nutrition of the body. A flannel binder should be applied to the abdomen to avoid chills and to act as a support to the abdominal wall. An emulsion of ol. ricini with 10 m of Tr. opii for an ounce may be administered every four hours which facilitates the easy removal of the irritating matter from the bowels.

Diet.—All solids must be stopped. The diet may be either milk, sago, rice water, congee, albumen water or barley water, chicken broth etc.

The specific treatment consists in the administration of emetine, which you all know is derived from ipecac. For this purpose the half a grain tabloids issued by Parke Davies & Co. or Burroughs Welcome are most convenient. Half a grain of the same is to be administered hypodermically morning and evening till about 10 to 15 grs. in all have been administered. On an average and as a routine it is better to have about 12 grs. for each patient. The ordinary aseptic precautions should be taken in giving the injection. No untoward results such as localised inflammation or suppuration has been noticed by me in about 200 cases in which I had to give about 20 to 25 injections for each case. I admit that some of them complained of some local pain which is quite conceivable when we remember the number of prickings we have to give in each case. Marked symptoms can be noticed within two days of the commencement of the treatment. Except in two cases, I have found complete cure in all the cases and no amoeba could be found in the stools even after a month of the discontinuance of the treatment. In two cases which were very advanced, even after 20 grs. of emetine administered continuously I found numerous active amoeba in their stools and I am sorry to say that these patients died of exhaustion in spite of all possible care.

Side by side with emetine administered hypodermically, oral administration also has been found to be much successful. For this purpose I always administer 20 grs. of pulv ipecac with 10 grs. of acid tannic daily. The maximum dose of emetine which can be given with safety to pregnant ladies is only half a grain daily. New preparation of emetine is in the market, the double iodide of emetine and bismuth which has been found to be superior in therapeutic efficiency to emetine hydrochlor hypodermically and has been proved to be very successful in the treatment of the encysted stage. It is given by mouth in catchet form 1 gr. three times a day till 36 grs. are given when a complete eradication of infection has been obtained.

When emetine cannot be had, the old fashioned ipecac treatment is very useful. For this, on empty stomach the patient is given a dose of Tr. opii 20 to 30 ms. by mouth and absolute rest in bed is enjoined. 40 grs. of ipecac made into two boluses is administered at intervals of half an hour. On administering the first dose, a mustard plaster is also applied to the epigastrium. No food is allowed for about 4 hours after the ipecac. The patient should not be allowed to spit, the saliva being wiped out whenever necessary. This treatment is to be continued for 4 to 6 days, when the dose of ipecac may gradually be reduced to 15 grs. and stopped after 10 to 15 days treatment.

In treatment with emetine we must remember that it is a depressant to the heart, and large and persistent doses of the same will produce lassitude, weakness, muscular tremors, rapid pulse and diarrhoea. If any of these symptoms are manifest the treatment should be discontinued and repeated again in smaller doses after some days, if necessary.

Symptomatic Treatment.—If griping is severe $\frac{1}{4}$ gr. of morphia with one hundredth grain of atropine is recommended. Turpentine stupes to the abdomen may be tried. Tenesmus can be relieved by enemata of starch and opium (20 to 30 Ms). If diarrhoea is obstinate drachm doses of bismuth subnitrates every 3 or 4 hours combined with Tr. kino or catechu

may be given. Collapse should be treated by intravenous saline.

In sub-acute and chronic cases of dysentery, in addition to the above mentioned methods of treatment irrigation of the large bowel has been found to be very beneficial. The solutions generally employed for the purpose are:—

Tannic Acid 2 gr. 1. oz.

Pot Permang quarter gr. to 1. oz.

Silver Nitrate——— “ “ “

Quinine sulph 8 grs. to 1. oz.

About 2 to 4 pints of the solution is gradually introduced high up in the rectum through a rubber catheter connected to an ordinary enema-can through its rubber tubing. Patient's hip should be kept raised and he should change his position so as to allow the fluid to flow in to all parts of the colon. The fluid should be retained inside for 10 to 15 minutes. This may be given both morning and evening and repeated for a week or even more, till all the symptoms subside.

This much for the amoebic dysentery. Coming to the bacillary variety I would deal only with such points as would differentiate the same from the amoebic variety, other signs and symptoms being almost the same.

The causative agent in this is the bacillus dysenterica of which there are innumerable different strains, chief of them being morgan, shiga, and flexners. The identification of the bacillus is made by their cultural characteristics regarding the fermenting action of the various culture media, which method of examination is impracticable in an ordinary clinical laboratory.

Morbid Anatomy.—This is generally a diffuse infiltration of the large gut, the mucous membrane getting inflamed with patches of ulceration here and there. The mesenteric glands may be enlarged but as opposed to amoebic the liver remains unaffected.

Symptoms.—The onset is often sudden. Symptoms are accompanied by fever ranging between 101 and 104°. In severe cases death may occur within 3 or 4 days, death being attributable to the toxins liberated by the bacilli upon the cardiac muscle. Tendency for relapse is rare. The disease is more common in children where the mortality is also very high.

Complications.—All those mentioned in the previous variety may occur with the exception of the liver disturbances.

Diagnosis.—It is made by the identification of the special bacillus in the stools, also the blood serum of the patients suffering from bacillary dysentery agglutinates the dysentery bacillus.

Treatment.—The general outlines of treatment enunciated above applies equally well to this form of dysentery. Emetine is of no use. The saline treatment has been found to be of great success. For this purpose two drachm doses of sodii sulph or mag sulph, preferably the former, in an ounce of menthol water with 15 or 20 minims of Tr. zingiber may be given at intervals of two hours till the stools assume a faecal appearance. This should be continued for 2 or 3 days.

Bismuth in drachm doses every 2 hrs. has a very beneficial effect. In severe and obstinate cases 30 to 40 cc of anti dysenteric serum acts as a specific. The serum should be given hypodermically for 5 or 6 days.

Our Contemporaries.

NOTES ON ASTHMA.

BY

JAMES ADAM, M.D., Glasgow.

SEVENTEEN years ago I put forward the view that asthma is in most cases essentially a toxæmia. More than once in this JOURNAL I have given arguments for this view and have amplified them in my book, and details will not be repeated, but some of the criticisms of that book and much recent writing show that that view is still far from being widely accepted, and yet the proof that asthma is a toxæmia is based not only

on the clinical facts but on the best of all evidence—therapeutical success. Of 390 cases about 70 per cent. can fairly be reckoned as cured, or almost so. These cases have come from all parts of this country as well as from some of the colonies, so that "place" has less influence on asthma than was believed.

Among these 390 cases two groups become prominent clinically. One group is that of week-end asthma. The asthmatic attacks in working-class patients tend to appear at the week end, and are clearly associated with the over-feeding and under-exercise of the week end. I have repeatedly dealt with this point. The only possible explanation of this periodicity is the upset metabolism resulting in a form of toxæmia which induces asthma. This class of case is usually, and for obvious reasons, readily amenable to treatment. This week-end periodicity is not confined to asthma or to man. It is found in some forms of albuminuria, angioneurotic oedema, and epilepsy; also in the "Monday morning disease" of horses (Woods Hutchinson). The toxæmia in this group is interesting as helping to explain the next group.

The second large group shows a clinical history of bronchitis in children, recurrent year after year, until ultimately what is called spasmodic asthma is diagnosed. The patient may be adolescent or adult before he realizes that he has asthma. In this class eczema is a prominent concomitant. Treatment proves this eczema and this asthma to be due to coddling, to confinement, and to carbohydrate excess, chiefly in the form of milk puddings: for alteration of these conditions means immediate improvement and ultimate cure of the diseases. Here again we have an imperfect metabolism leading to toxæmia, which, in turn, reveals itself in catarrh—of the skin as eczema: of the respiratory tract as various forms of rhinitis, enlarged adenoids, laryngismus stridulosa, bronchitis. This toxæmia acts not only on skin and mucous membrane, but, sooner or later, on the nervous system. And so the catarrhal condition may be accompanied or followed by a spasmodic state, hence—sometimes in combination—urticaria, angioneurotic oedema of

ago, and instead of destroying the bird, thought he would try a plan similar to that I had laid down for him. Instead of filling up its dish with a day's food, he gave it small regular feeds of plain canary seed, and thus cured it. I have had many asthmatic canaries examined by pathologists, who have found tuberculosis in none.

Asthma is probably a disease of civilization. While man had to hunt and kill what he ate, asthma was not likely to arise. An asthmatic visited a Red Indian location in Canada. An old squaw said to him: "You breathe heavy." "Yes; I have asthma." "You English eat too much." "What would you have me do?" She held up two fingers: "Two days no eating." Which was exactly the advice I had given, and which elicited the story. Inquiry among medical friends in various parts of the globe has elicited a number of interesting facts which, however, require sifting, which cannot be detailed here, but of which the following is a summary;

In Central Africa, still uncivilized, there is no overcrowding, the diet is mixed; tuberculosis, asthma, and enlarged tonsils and adenoids are unknown. In China and Manchuria, while the day is largely spent in the open air, overcrowding is common at night; the diet is largely carbohydrate (rice), but no milk is drunk; teeth are often filthy; asthma and enlarged tonsils and adenoids are rare, tuberculosis of glands and lung common. In Siam the life is rather more indoors, the diet more mixed, and milk is drunk and betel chewing common; teeth are filthy; asthma and enlarged tonsils and adenoids not uncommon; tuberculosis greatly increasing. In India conditions vary in different parts and among the different races, but carbohydrate forms a large proportion of the diet, and milk is drunk; tuberculosis is common, asthma also in some parts, but enlarged tonsils and adenoids do not seem to be common.

The inference seems to be that asthma tends to appear in proportion as the life is spent indoors, as there is overcrowding, as carbohydrate forms the staple diet, and as milk is drunk. This about milk is interesting, because my experience proves

beyond doubt that asthma cannot be cured when much milk, raw or boiled, is taken. I have cured two cases of heavy fever in adolescents who took large quantities of milk by simply cutting it down.

Asthma, then, being in many if not in most cases a toxæmia due to want of adaptation of food, not only to the needs, but to the biochemical peculiarities of the individual, its essential treatment is obvious, simple, but involving much painstaking trouble in every case. I have dealt with this elsewhere at length

Some think that attention to the nose has been over-emphasized, but for reasons given above, this is doubtful. After that the main thing is to procure elimination of toxins and prevention of further toxæmia: or, to use Guelpa's phrase, "Desintoxication et renouvellement des tissus." Long before the appearance of Guelpa's book the fact of week-end asthma and the voluntary fasting of the asthmatic during his paroxysm till it ceased had taught me the value of fasting, and it was practised with success. And Hyde Salter sixty years ago rightly took pains with the individual diet. But not enough attention has been paid to cookery. With an unusually irritable vagus it is important that the digestive organs be taxed as little as possible.—[B.M.J.]

PROCEEDINGS OF THE BRANCH MEETINGS.

ASSAM VALLEY BRANCH, DIBRUGARH, 19th April 1919.—
11 members were present, including the chairman, Mr. U. C. Mukherjee.

1. The resolutions of the last meeting were read and confirmed. Resolved (1) that Col. G. C. Meleod be approached with the request that one of the rooms of the Berry White Medical School, Dibrugarh, may be lent to them for holding the meetings of the Association.

2. That an Executive Committee be formed with the following seven members, viz.:—*President*:—Mr. U. C. Mukherjee. *Vice-presidents*:—Messrs. M. C. Chakravorty and C. K. Gupta. *Secretary*:—Mr. H. Ali. *Joint Secretary*:—Mr. N. C. Das. Messrs. K. Ali and R. C. Ganguli. Of these, four will form a quorum

3. That Dr. W. Grant of A. R. T. Co., be also approached to be a patron of the Association.
4. That the Secretary be appointed as ex-officio treasurer of the institution.
5. That a small sum be raised by donation to meet the initial expenditure of the Association.
6. That a minimum subscription of Rs. 14 a month be fixed for membership.
7. That the Secretary be authorised to write to the General Secretary to send the rules of the Association and any other rules and regulations that he may have in connection with the various branches.
8. That all proceedings of the meetings be sent to the General Secretary for publication in the journal of the Association.
9. With a vote of thanks to the chair the meeting dissolved.

DACCA BRANCH, 27th July, 1919.—14 members were present, including Dr. Surja Narayan Ghosh, who was in the chair.

Mr. K. P. Chakravorty read an excellent paper on "Infection and immunity." It was followed by a lively discussion in which many members took part. Rai Sahib Gurunath Sen explained the subject very clearly with a short but substantial speech.

It was also announced that the next meeting would take place in the last week of August and that a paper on "stomach wash without a funnel" would be read by Mr. Priya Nath Mahalanobis.

The meeting then dissolved with a vote of thanks to the chair.

DEHRA DUN BRANCH—23rd May 1919—5 members were present, including the chairman Mr. Bankey Lal.

1. The proceedings of the last two meetings were read and confirmed.

The accounts for the months of December 1918 and January and February 1919 were read and passed.

3. Resolved to offer thanks to the Hon'ble Col. C. Mactaggart M.A., M.B., E.D., C.S.I., I.M.S., for the increase of pay sanctioned for Civil Sub-Assistant Surgeons serving in the United Provinces

4. Resolved that a farewell party and address be given to Col. Mactaggart by the U. P. branch of the All I.S.A.S. Association on the occasion of his leaving India on retirement.

5. Resolved that a deputation of the following Sub-Assistant Surgeons should wait on the I.G. C. H., U. P. and lay before him the most important grievances of the class:—

“Mr. K. S. Zahid Hussain, Mr. S. L. Sharma, Mr. Daya Nidhan Mr. Ram Narain Lal, Mr. K. B. Lal Varma.

6. Resolved that the Government should be asked for more pucca Assistant Surgeon vacancies and not for Honorary Asst. Surgeons.

7. Resolved that Messrs. R. N. Lal and K. B. Varma should be asked for their report of the proceedings of U. P. Medical Council for the information of the class and that the cost of it should be charged to the Association.

14th June 1919.—4 members were present, including the chairman Mr. Bankey Lal.

Read Dr. R. Mat's letter regarding the L.M.S. scheme and resolved that there is no need for sending a deputation now and that Mr. Zahid Hussain, K. S. should be asked to move the I.G.C.H., U.P. for redressing the remaining two grievances, i.e. the liberal promotion of S.A. Surgeons to the cadre of Assistant Surgeons and their appointment as honorary physicians and surgeons in the District Hospitals

2. That this branch offers its respectful congratulations to the Hon'ble Col C. Mactaggart M.A., M.B., E.D., C.S.I., I.M.S., I.G.C.H., U. P. on the high honour of Commandership of the Star of India conferred on him.
3. That this branch heartily congratulates Mr. K. S. Zahid Hussain on his promotion to Assistant Surgeon's grade and Rai Sahib Mr. Bhola Dutt on the title of Rai Sahib conferred on him on the King's birthday, and offers its grateful thanks to the I.G.C.H., U.P. for these two recognitions.
4. That a copy of resolutions Nos. 2 and 3 be sent to Col. Mactaggart, Mr. K. S. Zahid Hussain, and Rai Sahib Mr. Bhola Dutt.
5. That the branch regrets the separation of Mr. Bankey Lal on account of his transfer to Colvin Hospital, Allahabad but congratulates him on his getting a more important post.
6. The presidentship being vacant by the above transfer Mr. Baedeo Sahai be elected President of this branch.
7. The appeal for subscriptions for Colonel Mactaggart's medal from the Provincial Secretary U.P. was read to the members.

9. The meeting then dissolved with a vote of thanks to the chair.

HYDERABAD, SIND, 27th July 1919.—6 members were present, including Mr. Nebhraj Bhojraj who was voted to the chair.

1. Minutes of the last meeting were read and confirmed.
2. The resignation of his office of Honorary Secretary tendered by Mr. Chelaram Tilumal was not accepted as all the members were in favour of his

continuing in his office. Carried unanimously. 3. Resolved that the following office bearers be appointed for the year 1919. *President* :—Mr. Nebhraj Bhojraj. *Vice-President* :—Mr. Parmanand Vishindas. *Secretary and Treasurer* :—Mr. Chelaram Tilumal. *Joint Secretary* :—Mr. K. M. Hiranandani.

Members of the managing Committee :—

- (1) Mr. Assumal Isadar. (3) Mr. Daryanomal Khubchand.
(2) .. Mulchand Gangaram. (4) .. Manghanmal Sadhumal
(5) Mr. Tirithdas Khanchand.

4. The account of the Sind branch for the half year ending 30th June 1919 was checked and passed with a vote of thanks to Mr. Cheloram Tilumal for his good work. 5. There was a lively discussion on Lathyrism due to maize eating, which leads to various nervous disturbances, such as paraplegia; the treatment advocated in such cases was intravenous injection of Pot. Iodide grs. in 3 c. c. normal saline solution: the injection was repeated twice a week; 6 such injections gave complete relief, the dose of Pot. Iodide being gradually increased from 10 to 30 grains.

The meeting dispersed with a vote of thanks to the chair.

KARACHI BRANCH.—*3rd July 1919*.—25 Sub-Asst. Surgeons were present, including Mr. Rochiram in the chair.

Mr. Madhavji B. Machhar was elected as Honorary Secretary as Mr. Permandas showed his inability to work as such. (2) The recent Army Instruction granting Commissioned ranks to S. A. Ss in military service was discussed. The proposal to thank the Government for this change was postponed for consideration at the next meeting.

(3) Mr. Rochiram proposed to bring to the notice of the medical council of Bombay that some prominent medical practitioners were associating with compounders and other non-qualified persons in the exercise of their profession. Owing to want of time he was asked to bring his proposal at the next meeting. (4) A scheme for holding the office, reading room and library of the branch in a rented building was placed before the meeting by Mr. Madhavji which was unanimously passed. (5) A paper on the value of microscope in making correct diagnosis was read by Mr. Jagdisram. Very interesting and striking examples were given by him showing how widely the results of the diagnosis by ordinary methods differed from those by the microscope. After some discussion on the matter, the meeting dissolved.

POONA BRANCH.—*18th January 1919*.—7 members were present, including Dr. Tukaram Laxman, in the chair.

1. The Secretary read his annual report for the year 1918 and referred to the great loss the Association suffered by the death of Dr. Iyer.

2. He also read a letter from the Karachi branch addressed to the Secretary to Government, Legislative Department, Bombay requesting permission to give evidence before the Franchise Committee and that the Sub-Assistant Surgeons may be considered eligible to vote at Council elections. The proposal was put to vote and unanimously approved.

3. Copies of the late Dr. Iyer's deathbed letters to Dr. Surjo Prasad asking him to take up the work of the General Secretary were also read. The members could not give their decision and so the matter was left to the Annual Conference.

4. The Secretary resigned his office and the following new office bearers were elected for the year 1919.

Mr. Tukaram Laxman :—President. Mr. Sardeshpande, A.B. :—Secretary. Mr. Joshi N. W. :—Joint Secretary. Members of the managing Committee :—Messrs. Mone R. V., Shikharo R. V., Jacob Desouza., Date M. N. and Jele K. B.

After a vote of thanks to the chair the meeting was dissolved.

15th February 1919.—12 members were present, including Mr. Tukaram Laxman who was in the chair.

(1) The Secretary read to the members the object of the meeting.

(2) Resolved and unanimously passed that two gentlemen may be elected to wait upon the Surgeon General to get information regarding the personnel of the Medical Service Reorganisation committee.

(3) Mr. Date proposed that Mr. Lohokare and Mr. Sardeshpande might be selected to wait upon the Surgeon General and collect information and the proposal was unanimously passed.

1st March 1919.—14 members were present, including Mr. Nikam who was in the chair.

The following resolutions were passed.

(1) That the courses of the present medical schools should be so arranged as to enable the pupils to appear for an examination accepted by the General Medical Council of the United Kingdom. 2. That there should be two examinations, one equivalent to the present I. M. S. and the other for recruitment to the provincial service, the latter to be held in every province as frequently as the exigencies of the

service demand. 3. That the members of this class be allowed to appear for all the competitive examinations held for recruiting the medical services in India. 4. That this branch elects Mr. K. G. Lohokare B. A. as a representative of this presidency to give evidence before the medical services Committee. 5. That all the branches be requested to support Mr. Lohokare's election as a representative of this presidency to give evidence before the Medical Services Committee. 6. That a copy of the resolutions passed at this meeting be sent to the Surgeon General with the Government of Bombay for information.

29th March 1919.—15 members were present, including Mr. Nikam, who was in the chair.

(1) Mr. R. V. Mone gave a short sketch of the life of Mr. B. M. Sohoni and proposed a vote of congratulation on his being promoted to the grade of Assistant Surgeon. He however regretted that the promotion was only to the last grade Assistant Surgeon instead of the 1st grade. In reply, Mr. Sohoni assured the members that when any questions arose regarding the Sub-Assistant Surgeons, he would champion their cause.

(2) Then Mr. Lohokare gave a short account of his evidence before the Medical Services Committee. (3) Mr. Lohokare also proposed to invite the Annual Conference to Poona this year and appealed to the members. The resolution was unanimously passed and donations to the extent of Rs. 500 were promised on the spot. (4) Mr. K. B. Lele gave a short sketch of the life of Mr. Abdul Rajak J. P. of Bombay and proposed that the Secretary should write to the widow of late Dr. Abdul Rajak a letter of condolence. This resolution was also passed unanimously.

3rd May 1919.—22 members were present, including Mr. K. B. Lele, who was in the chair.

Mr. Lohokare explained to the audience how the Association has been working for the good of the class, and requested those that were not members to become members. He also appealed to them all to subscribe liberally towards the expenses of the Annual Conference.

Mr. R. V. More supported Mr. Lohokare in a few words and, after a vote of thanks to the chair, members and guests were served tea, and the proceedings came to an end.

GUZERAT BRANCH, 29th Jan. 1919.—Six members were present, including the chairman, some important points on "Influenza" which remained untouched at the last meeting were discussed.

27th July, 1919.—Four members were present, including the chairman. Cases of "foreign bodies in the throat, nose and ears" as seen in practice were related by the members present and discussed.

MANDALAY BRANCH, 31st July 1919.—10 members were present, including the chairman Mr. P. I. Kumaran.

The chairman, in opening the proceedings, said that though he was fortunate to speak to them all that evening he regretted very much that the branch had not been meeting for nearly a year, viz., the second half of 1918 and the first half of 1919. During that period various things had happened which prevented the branch from doing any active work to its credit; he (the speaker) himself had been unwell for nearly six months, the able and energetic Secretary Mr. Lourdooswamy, had left the station and taken up a job elsewhere, and though an equally able and energetic secretary had been found in Mr. Tha Tin, yet his time was wholly taken up in meeting the extra work thrown on the hospital by the outbreak of Influenza and the shortage of staff. The Association also sustained a great loss by the untimely death of its Vice-President Mr. G. R. Verma, who had been taking a very active interest in the working of the association.

The terrible world war had come to an end with complete success to the Allied arms, and the Germans had been compelled to sign very reluctantly the heavy peace terms dictated by the victors. The time for reconstruction had arrived, consequently a reconstruction was also contemplated in the medical service in India. They had all heard of the Medical Conference held in Calcutta, at which the representatives of the association had submitted and discussed various proposals for the improvement of the medical profession in India. There was evidence of an increasing activity all round and so this branch association could no longer remain idle but should show an united activity and willingness to improve by meeting regularly and discussing the subjects brought before such meetings and thus promote the scientific knowledge and social status of the whole class.

The following office-bearers were elected: Messrs. P. I. Kumaran:—President. Jaya Gopal:—Vice-President. Niazamed:—Secretary, Tha Tin:—Asstt. Secretary. Devi Chand Sharma:—Treasurer.

The chairman proposed to place on record the great loss sustained by this branch association by the death of Mr. Verma, Vice-President, who had been taking active interest in the working of the association: the proposal was carried unanimously.

The question of the election of a joint Secretary in the place of Mr. E. Vijayam, appointed Provincial Secretary at the last annual conference at Calcutta, was taken up. The two names proposed, *viz.*, Messrs. G. Bhavanishanker and V. Krishna Menon, were put to vote and Mr. V. Krishna Menon was declared duly elected.

The president then read the letter from the Personal Asst. to the Surgeon General with the Government of Madras asking if the association desired to send a representative to give evidence before the Medical Services Re-organization committee and, if so, to intimate his name and address. Despite a general misunderstanding of the functions and scope of the coming committee and the qualifications necessary in the case of the representative the election was hurried through and as a result Mr. G. Bhavanishanker was chosen as the representative.

19th Feb. 1919.—Urgent committee meeting—Read letter from Mr. Maduraimuthu and others urging reconsideration of the proceedings of the last general body meeting electing Mr. G. Bhavani Shankar as representative of the Madras branch to give evidence before the Medical Services Reorganisation Committee. As the Committee had reliable information that one from the service had already been separately nominated by Government they unanimously resolved in the best interests of the Association that Rao Sahib Dr. U. Rama Rao, President of the Association be elected as the representative.

5th March 1919.—A very urgent committee meeting: seven members were present. Read letters received since the last committee meeting regarding the choice of a representative to give evidence before the Medical Services Reorganisation Committee. Resolved to have the question decided by a general body meeting to be convened on the 9th March.

9th March 1919.—A general body meeting. 17 members were present, including the chairman Mr. R. Ramanjulu Nayadu.

The minutes of the last general meeting and the two committee meetings and the letters received after the last general body meeting were read. Mr. G. Bhavani Shunker having withdrawn in favour of the President, Rao Sahib Dr. U. Rama Rao; the action of the managing committee and the minutes of their meeting were confirmed and Rao Sahib Dr. U. Rama Rao was finally chosen as the representative.

6th August 1919.—Ordinary meeting. 16 members were present; Dr. M. L. Kamath, B.A., M.D., was in the Chair.

An interesting paper on "Hookworm" by Mr. T. Abdul Aziz Sahib, L.M.P., was read by Mr. V. Krishna Menon in the unavoidable

absence of the former. The paper contained some valuable observations of Dr. K. S. Alhasker on the subject. An interesting discussion followed. Dr. Kamath threw some side lights on the subject and his admirable speech was well appreciated by the audience. After the president's speech was over, it was proposed by Mr. V. Krishna Menon, seconded by Mr. T. Rajaram and passed unanimously :—

1. "That this meeting records with pleasure the promotion of Rao Sahib Mr. A. Gopalan and Mr. G. Bhavani Shanker to the rank of Assistant Surgeon and congratulates them on the well merited promotion.

2. "That this meeting congratulates Rao Sahib Dr. U. Rama Rao the President of our Association, on the Kaiser-i-Hind silver medal awarded to him on the occasion of the King's Birthday."

After this there was a business meeting held with Mr. R. Ramanjulu Naidu in the chair.

Mr. T. Rajaram, Secretary pointed out the difficulties of holding emergent meetings in the absence of a building for the Association and inasmuch as some members objected to holding meetings in the private lodgings of the members. The general body unanimously resolved to request Rao Sahib Dr. U. Rama Rao to allow the use of his hall, as usual.

The question of holding the subject meetings in the Royapuram Medical School instead of in the Medical College hall was taken up. After some discussion it was decided to continue holding the meetings in the College hall as usual.

CORRESPONDENCE.

"DR. RAMACHANDRIER MEMORIAL FUND".

UNDER the above heading appears an appeal in the 'correspondence' columns of the Indian Medical Journal of June 1919. At the last conference, which was held at Calcutta, a resolution was passed appointing a committee to draw up a scheme for the above mentioned Memorial Fund, vide resolution No. 37 of the conference. It appears that a meeting was held by some of the members, who were appointed by the conference, at Meerut and the scheme as it appears in the June

issue was framed and passed by them. It is to be regretted that no notices were issued to all those whose names appear in the resolution passed by the Association for attending the meeting or sending their suggestions. Under the circumstance, I think it should be decided whether the scheme is a valid one.

The committee was not given any powers to make any amendments in the present rules of the Association. This scheme affects the rules to a great extent. It makes the Journal free to those who subscribe Rs. 100, Rs. 250 and Rs. 500, and also allows the heirs of those who give a donation of Rs. 500 to be members of the standing committee. The present rules clearly enjoin that when a member dies his interests in the Association cease. Our friends do away with this rule and any one can have his heirs as members of the standing committee and thereby members of the Association; thus the Association will include members outside the class of the Sub-Assistant Surgeons. I don't want to criticise this scheme further, but I want to draw attention to it and to point out that these rules should not be taken as settled, until they are passed by the Association at the next conference. Finally it is really surprising to see that the appeal is published without any names and as such passed by the General Secretary and the Editor who ought to have seen that the new rules were not according to those of the Association.

ROCHIRAM A. AMESUR.

[Note—As regards the aspersions cast upon the Editor the correspondent will do well to remember that the Editor is not responsible for the opinions of the correspondents. The mere fact that the appeal has been published in the Journal cannot mean that it has the approval of the Association or at least of the General Secretary or the Editor. On the other hand the matter was published under the head "Correspondence" so as to afford the readers an opportunity to offer their individual views in the matter—*Editor*.]

LETTERS TO THE EDITOR.

To,

The Editor,
INDIAN MEDICAL JOURNAL,
MADRAS.

Sir,

Please find space for the following in your valued journal and oblige.

In June Number "An appeal for funds for Dr. Ramachandra Iyer's memorial" appears. It seems to have been drafted by a sub-committee, constituted for the purpose with Rai Sahib Khazanchand as its Secretary. The preamble of the appeal is alright; but if certain objections are raised against the resolutions of the sub-committee by a man like myself, it would not be far from right. For instance I might ask whether this sub-committee is empowered to pass resolutions regarding "free distribution of the journals." The journal is the property of the Association and the Annual Conference only, or, in the matter of urgency, the Standing Committee can handle it. This sub-committee can only send their recommendations to be discussed in the Conference. The wording regarding this is guarded in the first two resolutions. But these lovers of "Constitutional methods" have decided for themselves that the "founders *shall get* the journal free during their life time."

Resolution No. 4 is absurd and the latter part of it is meaningless. If I pay Rs. 500 now and become a "Patron", I am not only entitled to the receipt of the journal free of charge, but my son, legal heir in succession, whosoever he be will also become member of the Standing Committee of the S. A. S. Association after me, never mind whether he is an engineer or a clerk, or an artist. If my conclusion, logically drawn from the last sentence of the resolution, is correct, heaven alone knows the meaning of the expression "Standing Committee of the All India S. A. S. Association."

I hear the General Secretary has instructed this Sub-Committee to prepare a ground plan of the proposed building first, and then circulate this appeal among responsible members before finally publishing it in the journal. This sane advice, it seems, is not taken, and the result is apparent.

Can I now appeal to these "Appellants" to revise their appeal and make it acceptable to all members as early as possible?

"Bewildered"

"A PAINFUL CONTRAST" NO. 1.

War Gratuity—The Adjutant General in India has notified for the information of all concerned the decision which the Government of India have come to with the approval of the Right Hon'ble the Secretary of State for India as regards the amount of war gratuity to be granted to the Indian officers, warrant officers, non-commissioned officers, men and followers.

The following is the scale of war gratuity payable in each case :—

INDIAN TROOPS.

Minimum gratuity to be paid.	Additional increments per calendar month after 1st 12 months of War Service.
1. Risaldars, Resaidars, Subedars, and Senior S.A.Ss. 1st and 2nd class, and higher ranks Rs. 60	Rs. 5—0—0
2. Jemadars and Senior V. Assts. Rs. 50	" 4—0—0
3. S.A.Ss. 1st, 2nd and 3rd class, Voty. Assts. 1st, 2nd and 3rd class, N.C.O. and Sepoys, &c. Rs. 12	Rs. 1—0—0
4. Public followers Rs. 8	" 0—8—0

BRITISH TROOPS.

Minimum gratuity to be paid.	Additional increments per calendar month after 1st 12 months of War Service.
Soldier	£ 5
2nd Corporal, Corporal and S/Sgt.	6
Corporal of Horse or Sgt., &c.	8
Staff Sgt. or Colour Sgt.	10
Warrant Officer, 2nd class	12
Warrant Officer, 1st class	15
If with a war service Overseas	10
If with no such service	5

The gratuity for war services for the British Officers ranges from £35 to £370, from 2nd Lieut to Lieut. General per annum and additional increments of £1 to £3 if with any service overseas and £1½ to £1½ if otherwise.

Now Sir, you can compare these figures and judge whether it is not a painful contrast, or rather a very painful one. Military Sub-Asst. Surgeons have already a bundle of grievances, but this has surpassed all.

A 1st class S. A. S., whatever the length of his service, is to get the same war gratuity as an ordinary Sepoy. According to the recent Army Instruction the 1st and 2nd class S. A. Ss. have been granted the rank of Jemadar and hold a much higher position than the sepoy, but look at the irony of fate in the matter of war gratuity for the purpose of which they are treated on a par with ordinary sepoys and only one step better than public followers. We were complaining of the small pay, meagre field allowance and want of separation allowance, but now we have this insult added to the existing injuries.

When the Government have spent billions of money during this war, can they not afford to spend a few thousands by way of war gratuity to this poorly paid but most useful class?

If economy were the prevailing consideration the Government may as well refuse war gratuity to our men—and our men will put up with it ungrudgingly—rather than allow them the miserable pittance and treat them on a par with ordinary sepoys. This decision of the Government is resented to by every member of the class. We hope the Government will do away with this anomalous distinction either by revising the scale of war gratuity so as to be in keeping with the dignity and status of the S. A. Ss. or by altogether denying the concession to them.

"A PAINFUL CONTRAST" NO. 2.

The treatment of the Military Sub-Assistant Surgeons in the army has been anything ^{but} satisfactory. Till recently they were classed as warrant officers but thanks to Government they have since been granted Indian commissioned rank, though it is only those of more than 5 years service that are entitled to the rank. There are still lots of things demanding the immediate and sympathetic attention of our benign Government. An enumeration of this multitude of disabilities will be a tedious and sorrowful reading and I will therefore confine myself to a few of them.

(1) A newly passed Civil Asst. Surgeon gets a starting pay of Rs. 550 plus Rs. 75 gratuity, p. m. And he suddenly jumps up from the subordinate service to the higher ranks of the department, gets the same privileges and concessions as a permanent member of the I. M. Service with a chance of being confirmed in that service. Besides this he gets Rs. 600 as an outfit allowance.

Compare this with the lot of a newly passed military Sub-Asst. Surgeon. He starts from Rs. 60 p. m. with no outfit allowance and practically no gratuity, (as gratuity in his case is Re. 1 p. m.) and he ranks as Indian warrant officer. As regards general and professional education, there is not so much difference between these two classes as to justify all this disparity of the terms and conditions of service.

2. During the present war Government have realised the difference between civil and military life, and offered liberal pay and allowances to civil hands undertaking liability for field service. The Government are therefore in a better position to realise the inadequacy of the pittance allowed to the military Sub-Asst. Surgeons.

Though the Civil Sub-Asst. Surgeons were not treated so liberally as the Civil Asst. Surgeons yet we take their pay and allowances as the basis for the revision of the pay of military Sub-Asst. Surgeons and request the benign Government to fix the scale of pay at not less than that granted to the Civil Sub-Asst. Surgeons during the present war for services overseas while on active service, and present scale of military pay plus special allowance for private practice while in India.

3. A newly passed Military Sub-Asst. Surgeon should be given an outfit allowance of Rs. 200 and a clothing allowance of Rs. 3 p. m.

4. Form 'E' for Railway journey should be introduced forthwith, as the class is suffering a great pecuniary loss in its absence.

5. Detention allowance should also be sanctioned immediately, as many Sub-Asst. Surgeons have to wait at ports of embarkation and other places for many days, where they have to spend money from their own pockets, as the arrangements in the camps are decidedly far from satisfactory.

6. When travelling by rail with troops or 'Invalids' train, a Sub-Asst. Surgeon is allowed eight annas per diem; which is hardly enough to buy tea once a day from the dining car or the restaurant. Here too he has to spend money from his meagre pay.

In this connection it will not be out of place to mention that a British soldier when travelling by rail gets Rs. 2-8-0 as ration money.

Therefore it is prayed that at least this concession should be extended to their class.

"Interested"

THE The Indian Medical Journal

Vol. XIII.]

SEPTEMBER 1919.

[No. 9.]

SUB-ASSISTANT SURGEONS IN MYSORE.

It is with mingled feelings of satisfaction and disappointment that we have received the news of the recent enhancement to Rs. 45 of the initial pay of Sub-Assistant Surgeons in Mysore; satisfaction because living wages have been allowed at least to the juniors, and disappointment because the case of the seniors, who have been serving from such a long time, has been altogether ignored. We cannot discern the practical wisdom of this halfway measure of reform. We are in the land of hopes and therefore an initial pay, however decent, without hopes of future prospects and distinction, can at best secure but a temporary contentment. Sooner or later the man is sure to become painfully conscious of the limitations imposed by the decrees of temporal authority and then his zeal for work and his aptitude for professional advancement gradually die away. On the other hand a provision for a regular flow of promotion and judicious recognition and reward of merit and efficiency will highly conduce to a spirit of emulation and thereby also to efficiency in service. In the Madras scale we find a distinct increase both in the minimum and maximum pay and we hear that the same is the case even in the other provinces where there has been any revision. Again "once a Sub-Assistant Surgeon, ever a Sub-Assistant Surgeon only" has been a longstanding

grievance of our class all over the country. This has however been partially redressed by a Government order of 1916 conceding that deserving Sub-Assistant Surgeons of long standing might be promoted to the grade of Civil Assistant Surgeon. We fail to see why the Mysore Darbar should not revise and amplify their scheme on the lines of the Madras one, especially because the recruitment to the Mysore cadre is from the same class as that from which the Madras service is recruited and the training and qualifications are all identical.

In this connection we are reminded of the editorial article in the "Madras Times" of the 3rd September on the subject of "Medical Aid in Mysore" in which are quoted the following passages from a special note of the Senior Surgeon with the Government of Mysore. "Our district hospitals are badly equipped and officered.... The officers in charge of these institutions are mostly incapable men." "The Sub-Assistant Surgeons should be gradually replaced with Licentiates in Medicine." The latter passage is said to be the recommendation of the Surgeon-General, but to our knowing there is no Surgeon-General with the Government of Mysore. Probably it is the Senior Surgeon that is meant. Whatever might have been the unfortunate experiences of this head of the medical administration in Mysore we must, with due deference to his high indigenous qualifications, his experience and age, protest against such a wholesale condemnation of Sub-Assistant Surgeons. This reminds us of Sir Henry Burdett's letter to the Times in which, we are told, that gallant English Knight has damned the whole lot of Indian Medical Graduates holding temporary commissions in the I. M. S. as quite unqualified and incapable of working even as assistants to a panel doctor in England. It is possible that Sir

Henry Burdett is ignorant of the conditions of medical education in this country and of the remarkable success which our Indian Medical Graduates have been as D. M. and S. Os, as Physicians and Surgeons of the General Hospital, etc., but it is however impossible that the Senior Surgeon, Mysore, himself an Indian Medical Graduate, could possibly have been ignorant of the nature of the practical and theoretical training undergone by the now-a-days Sub-Assistant Surgeons. In fact the course of studies undergone by them is practically identical with the one which till quite recently the L. M. Ss. were undergoing.

We quite admit that the science of medicine has progressed so considerably during the past twenty years that it is no longer possible to limit the curriculum of studies of Sub-Assistant Surgeons to four years, and as a matter of fact we have been continuously urging for the extension of the course of studies in our medical schools to five years. The Government of the United Provinces of Delhi and Agra have also sanctioned a scheme (The Agra L. M. S. scheme) to that effect, though owing to the bugbear of finance they have not yet been able to give effect to it. The Mysore Government may as well try this scheme in addition to establishing new degrees and faculties. After all efficiency depends not a little upon contentment, and contentment upon adequate emoluments.

THE ALL INDIA SUB-ASSISTANT SURGEONS ASSOCIATION.

*The 11th U. P. Provincial Conference to be held at Lucknow
in November next.*

KAPURTHALA DISPENSARY,
Lucknow, 15th September, 1919.

Dear Doctor,

I request you to hold a meeting of your branch, to select delegates and to pass resolutions, which in the opinion of your branch should be discussed at the conference.

The names of the delegates the copies of the resolutions and also the scientific papers should reach me by the 20th October the latest.

I need not remind you that this year the conference will be held at such a big place as Lucknow and that every effort will be made to make it a success. Your kind co-operation is earnestly solicited.

Panna Lal Sood,
Secretary,
Reception Committee.

OBITUARY.

We are extremely sorry to hear the news of the death of Rao Sahib Mr. Anant Santram Malve at Ahmadnagar on the 27th July last. About this period of last year we were bemoaning the loss of Dr. Ramachendrier, the founder and the first General Secretary of our Association and this year there comes the news of the death of Mr. Malve, the founder and the first editor of our journal. Although owing to personal domestic afflictions Mr. Malve has of late ceased to take any active part in the affairs of the Association yet what he had done for us during the 8 years of his editorship is as much as a whole life's work, and there are the 8 volumes of the journal bearing eloquent testimony to it. "When the heart is full few words are the best". The deceased leaves behind a poor, helpless widow, their only son, an M.A., and L.L.B having pre-deceased the father. We offer our sincere condolences to the unfortunate widow and hope she will have the strength to endure the cruel decree. May the departed soul rest in eternal peace.

REVIEWS.

We have read with much interest Dr. J. L. Da's "Manual of Conservancy" sent to us by the well known medical publishers of Calcutta, Messrs Butterworth and Co. In this attractive little volume of 182 pages the author traverses the entire field of conservancy, in all its details, from the removal and disposal of refuse, nightsoil and sullage down to the selection, care, keeping and diseases of conservancy cattle. The observations and instructions contained in Parts I and II are of incalculable use not only to students of sanitary science but also to those who are employed in guarding the sanitation and public health in urban areas. The work evidences a mastery of the principles and practice of conservancy and is by far the best Indian production on the subject we have yet seen. It will prove to be a very valuable guide to all those who have anything to do with the burning subject of sanitation.

Resina Scammoniae.

P. B. P.

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RAT BITE FEVER.

By

MR. JIWANLAL, SUB-ASSISTANT SURGEON (*Punjab service*)

Rat-bite fever is an irregular fever of a hectic type of 3 to 6 months duration with petechial rash, lymphangitis, pain and inflammation of muscles, anaemia and severe prostration. The incubation period is usually from 10 to 14 days, but in some cases it may be much longer too—from 6 to 8 weeks. This fever occurs mostly in China and Japan, where it is known as *sokodu* and *sokoshie*. It has recently been recognised also in the United Kingdom, America, Italy, France and Spain. It is conveyed by the bite of a rat. The darkish brown rat seems more responsible than the other varieties. An angry bite is more effective than an accidental one, the deeper the bite the severe the infection.

It is believed that the poison is introduced into the system through the saliva of the rat coming in contact with the bite. It is then absorbed by the lymphatics, which carry it to the neighbouring lymphatic glands. Both these become inflamed and the poison passes into the general circulation and causes fever and other symptoms. A Japanese physician, Ogata, believes that the fever is due to an aspergillus, while other physicians claim that a spirochoeta has been found in the blood of patients suffering from this fever. But little is yet known of the organism.

In blood both the leucocytes and eosinophiles are increased in number, the former to 19000 and the latter to 8%. The wound caused by the bite ordinarily heals in 2 or 3 days and there is no trouble whatever; but after the incubation period there is pain at the seat of the bite, the part swells and inflammation sets in. The pain is severe, boring and darting in character, and worse at night. In some cases vesicles form around giving rise to ulceration and sloughing. The lymphatic vessels become inflamed and appear like red lines going up from the place of infection. The surrounding tissues also become inflamed and swollen. The corresponding glands are swollen and painful but do not suppurate. At the same time the patient has headache, rigors, nausea, vomiting and restlessness, loss of appetite, furred tongue, constipation and sometimes sore throat and hoarseness of voice. The temperature rises to 103 or 104, continues so for one to four days—sometimes as long as 12 days also. The fever then subsides only to break out again at irregular intervals. There appear spots or petechiae over the body, more on the front of the trunk, inside the arm and thigh; there is pain in the muscles, especially in the pectoral and calf muscles; the liver is slightly enlarged and in some cases slight jaundice is noticed; there is no enlargement of the spleen. Locally the trouble simulates cellulitis. The more acute the inflammation the more severe is the fever. In some cases there is an interval of apyrexia of a few days, when a second attack of fever like the first comes on and in this way the fever keeps appearing and disappearing for several weeks and even months. The temperature in chronic cases assumes the hectic type, the morning temperature being 99 and the evening 101 or 102. The case lingers for 3 or 4 months; the patient becomes weak, emaciated, loses weight and, if not cared for well, may develop intercurrent diseases, such as diarrhoea, dysentery, bronchitis and bed sores, which, if allowed to continue, may carry away the patient. Usually, after 2 or 3 months the patient is rid of fever, regains his strength and appetite gradually and feels better. Convalescence is then uninterrupted and after some days he resumes his work.

The diagnosis in these cases is quite misleading and difficult, especially if no history of rat-bite is charted from the patient or from the relatives. The following diagnostic points should be remembered:—(1) history of rat-bite (2) inflammation of the scar of the bite (3) lymphangitis and inflammation of the neighbouring glands (4) very severe and agonising pain appearing at the outset of inflammation and subsiding with the subsidence of inflammation (5) pain in the muscles (6) irregular type of fever.

There are many fevers with which rat-bite fever may be confounded, as the latter is less known in India and no research has yet been made. In some cases when the bite is in the darkness of night the patient may mistake it for snake bite. In snake bite the very appearance of the bite is different and looks as though it were lanced and punctured, there is severe pain, more darting and shooting upwards along the course of the nerves, the symptoms are very rapid and there is no fever; while in rat-bite the bite has the appearance of having been caused by two rows of teeth, there is neither pain nor fever nor any other rapid symptoms though they may manifest themselves after some days. When there are inflammation of the tissues and of the lymphatic glands, swelling, lymphangitis and high fever the condition might be mistaken for blood-poisoning or cellulitis or plague. In rat-bite there is no pus formation or tissue destruction as we generally find in cellulitis or bubo formation or suppuration or such other grave symptoms as we find in plague. Moreover, the absence of severe toxæmia and brain fever, and the presence of bacillus pestis in the blood and pus when examined under a microscope will clear all doubt. If the bite happens to be at the tip of the finger, just after the incubation period the condition may resemble that of whitlow, and in one case an experienced medical man actually mistook it for whitlow and incised it. It is most difficult to diagnose it in the early stages, especially when the patient does not give a history of the rat-bite, but in the later stages it can be easily distinguished by the severe pain, high fever, lymphangitis and the inflammation

of the glands which never occur in whitlow. When the disease has lasted for some time and the fever is continuous it may also be mistaken for Malta fever, but the history of rat-bite and the presence of bacillus melitensis will clear the doubt. In the later stages, when all the acute symptoms have subsided and there is hectic fever with anaemia, debility and emaciation rat bite fever may also be mistaken for phthisis, cancer and other cachexial states and internal suppurations. The difficulty in diagnosis will be felt all the more where there is no facility for diagnosis with the aid of a microscope. A careful case taking, vigilant examination of all the internal organs and viscera might help in arriving at a right diagnosis.

Prognosis.—The prognosis is generally favourable, the deaths being only 10 per cent. If the patient's strength is kept up by suitable diet and general hygienic precautions duly observed he soon recovers from the illness. Much depends upon the early diagnosis and early cauterisation of the wound.

Treatment.—The treatment is quite expectant and symptomatic. No special drug has been known to neutralize the poison and save the patient from long suffering. The treatment may be both local and general.

Local treatment:—If the patient is seen soon after the bite, a ligature should be applied above bite, touched with carbolic or nitric acid or swabbed well with Tinct: Iodine and then antiseptically dressed. When inflammation sets in, the parts should be poulticed or put in warm antiseptic bath, and given surgical rest. When cellulitis has appeared, give complete rest, apply leeches, give antiseptic baths and fomentations, paint the part with ichthyol belladonna and glycerine and bandage. Unless the swelling is much increased or sloughing threatened, avoid lancing or incising the parts, as this procedure may aggravate the trouble by exposing the tissues to infection from without.

General treatment:—This can be sub-divided into 4 heads:—(1) hygienic (2) dietetic (3) symptomatic and (4) special.

Hygienic treatment:—The patient should be kept in a well ventilated, clean room. In the early stages, when the fever runs very high, and the inflammation is threatening, he should not be allowed to get away from his bed. Great care should be taken regarding nursing, sponging and other details. When the fever has subsided and the inflammation disappeared, he may be allowed to sit up in open air to move about a little or take a little walk or drive. In the later stages, when the patient is bed-ridden, special attention should be paid to his back and other prominent bony points to avoid bed sores, etc. The patient should have sufficient fresh air and a daily warm sponging.

Dietetic treatment: In the beginning, only liquid diet is allowed—milk, milk with soda water, sago, arrowroot may be given. When the fever and inflammation have subsided, he may be allowed a little solid food such as milk and rice, dhal and rice, vegetable curries, kichri and, if the patient is able to digest more food, he can be allowed "dahal roti" or small chapati with some vegetable soups or dhal moong; some fruits may be given. In bad cases the patient should be kept on liquid diet only; his strength should be kept up by easily digestible and nourishing food—milk, fruit juices, vegetable curries, egg-flips, etc. Special attention should be paid to his digestive system, so that he may not suffer diarrhoea and dysentery which these cases are always prone to get.

(3) *Symptomatic treatment:*—The chief symptoms in the early stages are pain and fever. Pain in the inflamed part and in the muscles is simply agonising—and worse at night, therefore an injection of morphia is a source of great relief to the patients. Fever is not reduced by any treatment. Quinine and soda salicylas produce no effect, therefore no attempt should be made to drug the patient with these or other remedies. If the temperature is high, cold sponging, ice caps or wet packs to head should be applied; keep the bowels always opened and give a little fever mixture with some stimulant to keep the temperature low and the patient able to combat it with his

of the glands which never occur in whitlow. When the disease has lasted for some time and the fever is continuous it may also be mistaken for Malta fever, but the history of rat-bite and the presence of bacillus melitensis will clear the doubt. In the later stages, when all the acute symptoms have subsided and there is hectic fever with anaemia, debility and emaciation rat bite fever may also be mistaken for phtysis, cancer and other cachexial states and internal suppurations. The difficulty in diagnosis will be felt all the more where there is no facility for diagnosis with the aid of a microscope. A careful case taking, vigilant examination of all the internal organs and viscera might help in arriving at a right diagnosis.

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Dietetic treatment: In the beginning, only liquid diet is allowed—milk, milk with soda water, sago, arrowroot may be given. When the fever and inflammation have subsided, he may be allowed a little solid food such as milk and rice, dhal and rice, vegetable curries, kichri and, if the patient is able to digest more food, he can be allowed "dabal roti" or small chapati with some vegetable soups or dhal moong; some fruits may be given. In bad cases the patient should be kept on liquid diet only; his strength should be kept up by easily digestible and nourishing food—milk, fruit juices, vegetable curries, egg-flops, etc. Special attention should be paid to his digestive system, so that he may not suffer diarrhoea and dysentery which these cases are always prone to get.

(3) *Symptomatic treatment:*—The chief symptoms in the early stages are pain and fever. Pain in the inflamed part and in the muscles is simply agonising—and worse at night, therefore an injection of morphia is a source of great relief to the patients. Fever is not reduced by any treatment. Quinine and soda salicylas produce no effect, therefore no attempt should be made to drug the patient with these or other remedies. If the temperature is high, cold sponging, ice caps or wet packs to head should be applied; keep the bowels always opened and give a little fever mixture with some stimulant to keep the temperature low and the patient able to combat it with his

own vitality. Arsenic is said to have some effect in neutralizing the rat poison, but I don't know how it acts. The Vaidis and Hakims advise arsenic to be tried. After the recent researches and finding of spirochoeta in the blood of these patients physicians advise intravenous injections of salvarsan. There are no statistics to show whether any benefit has resulted from its use. To me it seems the important thing is arsenic, whether in the form of Fowlers solution, or the "Vaidie kushtas" or the modern Salvarsan, or arsenobillon. This drug may have some effect in curing the disease. The reason is that arsenic in arabic is called "sum-ul-far" or poison for the rat (Sum=poison, far=rat). Anyhow this is only a suggestion, but I may tell you that I have seen the good effects of this drug in cutting short the period of the disease from 6 months to 3 months or less under my care. With arsenic, mercury perchloride solution or Tinct Iodine or iron may be advantageously mixed as the drugs are well known in arresting toxæmia. For pain in the muscles, fomentation and liniments soap or camphor may be prescribed. In chronic cases, we can only help the patient by giving him tonics, stimulants, to keep up his strength, good food, open air and sound nursing. If diarrhoea, dysentery or bronchitis trouble, the appropriate treatment for such diseases may be adopted.

Special treatment:—Hata a Japanese physician gave salvarsan and the relapses were arrested in some instances, but the attacks cease spontaneously at such irregular times that the influence of this drug cannot yet be accurately estimated. Dr. Sutherland of Lahore advised the use of arsenobillon intravenously.

I. Case.—Mr. J. aged 30 years—a Hindu male was bitten in the day time by a household darkish brown male rat at the tip of his left finger while attempting to catch it. The rat gave him an angry and deep bite. There was a good deal of hæmorrhage. The patient squeezed the finger and applied Tinct. Iodine and then put a bandage over it. The wound healed in three days and no trouble was noticed.

After a lapse of 14 days, when the patient had forgotten all about the bite, he felt smarting pain over the seat of the bite, and a swelling appeared. The trouble simulated a whitlow and it was treated with poultice and fomentation. Pain was very severe especially at night when the patient used to cry loud, and a morphia injection was thought necessary to relieve his trouble; after three days the swelling gave a fluctuation and it was eagerly incised by his doctor. No pus came out and the trouble, instead of being relieved, increased a good deal. He got fever with shivering and other usual accompaniments like headache, restlessness, pain in body, etc., temperature was 103 and 104. The swelling now began to spread and his back of head and whole of the forearm became swollen in the next two days. Lymphatics appeared swollen as red lines around the arm. Fever increased, there was pain in muscles and petechial rash on the body—trochlear and axillary glands became swollen and the swelling spread to the arm and shoulder. There was a slight enlargement of the liver and a tinge of jaundice in his eyes. At this stage the patient was seen by a senior doctor, who took it to be a case of cellulitis and advised an immediate amputation of his arm. The patient and his relatives did not agree to this and insisted on any other treatment than the amputation. Blood was examined for M.P.—with negative results.

Fever, pain in swollen arm, pain in muscles, specially the pectoral and calf muscles, and other toxæmic symptoms, loss of sleep, made the patient worse and he lost about 20 lbs. in weight. Quinine was pushed in up to 45 grains daily to bring his fever down and so also aspirine, soda salicylas, and fever mixtures, but all failed. His arm was bathed in warm carbolic lotion 1/100 or 1/4000 mercury lotion and then warm belladonna and ichthyol glycerine was painted and bandaged twice or thrice a day. Incisions were given over the swollen part to evacuate any pus—without the least relief. No pus appeared: after 20 days of the appearance of swelling the inflammation subsided. Swelling decreased and with it were relieved other painful

symptoms and fever also came down. It took 15 days for the swelling to disappear, but the induration of the tissues and glands remained 2 months afterwards—On the 50th day morning temperature was normal, but the evening was 100 or 101 still. Iron and arsenic were continued throughout, the patient was allowed outdoor walk and drive and no special ban was put on his selection of food. He seemed alright, he began to gain in weight and resume his work, but the evening temperature up to 99 and 100 remained for 110 days after the bite, when the evening temperature came down to normal and the patient was supposed to be alright.

Mr. R. N. aged 39 years, a Hindu gentleman was bitten by a domestic rat at night in his forearm. The wound healed in a few days and no anxiety was entertained about it.

After 15 days of the bite, the healed wound began to show symptoms of inflammation, pain was very severe, and it burst resulting in a sloughing ulcer which caused some alarm. Fever ushered in with rigors and pain in muscles and body. The tissues around the wound became inflamed and so the whole forearm was swollen. The glands trochlear and axillary were also enlarged and inflamed. The wound was dealt with antiseptically and fever was treated with quinine and other allied medicines. After 15 days, inflammation subsided and the fever subsided. The patients had lost flesh and weight. The fever continued low. The patient got cough and an attack of hæmoptysis. He was suspected for T. B. lungs and was advised to go to King Edward Sanatorium at Dhalmpura where he remained for two months. His sputum was examined many times for T. B. and blood for M. P., bacillus melitensis. relapsing fever. In spite of good nursing and stay at the health resort, no material benefit was gained. At this stage I saw the patient. He was much debilitated, had cough, and hoarse voice. His chest showed signs of cavity—he had hectic temperature—very poor digestion and very loth in appearance. He gave a history of rat-bite some 5 months previously. He could not stand up, and was carried by his relatives from place to place

(vii) Lens—The presence or absence of a cataract and if present one must make certain whether it is at a particular spot.

(viii) Anterior part of the vitreous.—In a case coming 3 or 4 days later the yellow reflex of the pupil is indicative of pus in the vitreous and of plastic irido-cyclitis.

(ix) Sometimes there is wound of the sclerotic coat with pointing edges and oozing out of the vitreous. A bit of the metal may be seen protruding.

4. *Tension*.—This is important in diagnosis and prognosis. Diminished tension due to loss of vitreous usually shows a loss of vision at the time of injury. Later on the sudden diminution of tension due to loss of vitreous may end either in hæmorrhage into the vitreous or detachment of retina.

(5) *Ophthalmoscopic examination*.—This does not give much information in a recent case. In fact it is impossible when there is blood in A.C. or a wound of cornea with much infiltration. Where the metal has caused a traumatic cataract or having passed through the lens and sclera or in the orbit beyond, the media are as a rule hazy owing to the blood in vitreous or A.C. In a recent case the eyes are irritable to light. In an older case the examination should not be omitted as a rule. Points to be looked for in an ophthalmoscopic examination of lens.

A small opacity due to trauma of the lens—as a result of blow on the eye with a blunt substance like a ball or pellet or stone. Such an opacity of lens is called “concussion cataract.”

Rupture of the anterior capsule and a track in the lens may indicate the presence of the foreign body beyond the lens.

Foreign bodies may be lodged in the lens and may be mistaken for a cataract. (Localised)

Vitreous.—In a recent case the vitreous is full of blood or blood clots and one of these suddenly floating up may look like a foreign body.

2. Paint three times the first day and after abscission three times on the second.
3. There is neither pain nor scarring.
4. Sepsis does not occur.
5. The treatment is useless for larger warts.
6. The use of the salicylic solution prevents pain when the warts are cut off and recurrence afterwards. [B. M. J. July, 1919.]

THE THIRD U. P. PROVINCIAL CONFERENCE.

THE Conference was held in the Town Hall, Benares on the 19th and 20th January under the presidency of Col. Crawford, I. M. S., Civil Surgeon, Benares. Among those present were Rai Bahadur Dr. Surjuprasad of Indore, Rai Sahib Drs. Murat Lal and Bhagawan Sahai Singh, Khan Sahib, Dr. Zahid Hussain, Messrs. Shiv Lal Sharma, Bankey Lal, Ramnarayan Lal, Varma, R. K. Desai and Rochiram. A few minutes before the appointed time, Col. Crawford, I. M. S., the president-designate, arrived and was received by the members of the Reception Committee at the gate. Mr. Brij Bal-labh Mathur, Secretary, Reception Committee then read the following welcome address.

BROTHER DELEGATES, LADIES AND GENTLEMEN,

Allow me to accord to you a most hearty welcome to this ancient and historic city of Benares and to thank you cordially for the great honour you have done us in coming over here at no small sacrifice of comfort and convenience. It is a rare privilege to have the opportunity of playing the host to so many of our fellow members, and I can assure you that we, the members of the Reception Committee are fully sensible of the great obligation under which you all have laid us by responding so well to our humble invitation.

We have assembled this time under far happier circumstances. The Great War has ended, to the satisfaction of us all, in an overwhelming victory for the cause of righteousness and justice; and our first duty to-day is to offer our most hearty congratulations to our benign Government which bore the brunt of the titanic struggle under the most adverse circumstances, on emerging out of the war victorious beyond measure, and strong beyond compare.

It is a matter of sincere gratification to us, that many members of our class responded well to the call of duty; and in spite of many discouraging circumstances rose equal to the occasion in the hour of the Empire's need. Some of them have brought credit both to themselves and their class; and it is a matter of pride to us all that two members of our branch, Dr. Ganga Prasad and Dr. Chhail Behari Lal Dina, figured in the despatch of General Marshal from Mesopotamia as men who had done meritorious services in the field. It is but natural for such men to expect that in this hour of universal rejoicing the humble but nevertheless heroic part they played in tending the sick and the wounded, whether in the field or in the hospital, would not be forgotten; and I do devoutly hope that these expectations would be fully realised and that we would soon see some of them promoted to the rank of Assistant Surgeon, and a good many to grades higher than that to which they would be entitled by reason of the length of their service.

The end of the war, I hope, has brought within sight the removal of many of our longstanding grievances. Our pay and prospects have for a long time been ridiculously low; but while other provincial Governments had during recent years done something to better the lot of the Sub-Assistant Surgeons, we in this province remain where we were years ago. It is however a matter for satisfaction that our kind and sympathetic Inspector-General, the Hon'ble Col. C. Mactaggart has recently taken up this question in right earnest and succeeded in inducing the U. P. Government to make a provision for

raising the scale of our salaries in their next budget. For this great service that he has done to us, he deserves our sincerest thanks; and let us hope that before the commencement of the next financial year he will secure for his scheme the necessary sanction of the Government of India.

The promotion of the most deserving Sub-Assistant Surgeons in this province to the rank of Assistant Surgeon is another matter to which we have to draw the attention of the Government of Sir Harcourt Butler, our sympathetic Lieutenant Governor, who did so much for our brethren in Burma when that province was under his control. All other provinces in British India have done something by way of carrying out the policy enunciated by the Government of India in circular No. 1045, dated 2nd October 1914: but, unfortunately, in this province not a single S. A. S. has been promoted to the rank of Assistant Surgeon so far. May we not hope that something will be done now that the war no longer stands in the way of all reform involving increased expenditure.

We have also to petition our Government to raise the general status of our class. Many of the Sub-Assistant Surgeons have distinguished themselves as very capable and efficient private practitioners, and there seems no reasonable ground why they should be supposed ineligible for appointment as Honorary Surgeons and Physicians in Government Hospitals. It is necessary also to press forward our claims to exemption from the Arms Act; for service in out of the way places, and the serious responsibility of Sub-Assistant Surgeons in all medico-legal cases render this a matter of absolute necessity. The danger to which we are exposed is as great as that to which an ordinary Tahsildar is exposed to and all that we ask for is to be placed exactly on the same footing as he.

We must thank our Government for granting us some seats on the U. P. Medical Council; but it is obvious to you all that the number is extremely disproportionate to the number and importance of the members of our class in the province. The questions that the council decides affect us the most; and

it will be but fair that we should have at least two more seats in order to represent even partially the interests of our class. But here I may be permitted to sound a note of warning. No amount of petitioning by us will receive any attention at the hands of our authorities unless and until our members realise their sense of responsibility and get themselves registered under the act in much larger numbers. It is hardly creditable to us that only 35% of our members should have got themselves registered so far as against 99% of the Assistant Surgeons in the province.

This brings me to another important matter which affects our status vitally. In the United Kingdom the rules regarding registrable qualification in the medical profession provide for a course of 5 years training as the necessary minimum equipment of registered members. This prevents us in many ways from availing ourselves of the privileges attached to registration in the United Kingdom; and the only way to raise ourselves to the superior status of the British medical practitioners is to request our Government to take steps for an early introduction of the L. M. S. scheme providing for 5 years course of training in Agra, as well as in other Medical Schools in India.

The recent Influenza epidemic has revealed to us the danger to public health from the prevailing scarcity of qualified medical men in the country and the consequent recourse to all sorts of quacks and so called Vaidis not only in the mofussil but even in large cities. In almost every city the cry was loud and persistent that there were not sufficient medical men in the country; the pressure on hospitals was tremendous; lakhs of men died without any medical treatment at all, and many more died because of their treatment by quacks, compounders and all sorts of bogus medical men. The only way to meet this danger is to increase the number of qualified medical men; and in this connection I would strongly support the opening of a new medical school in the United Provinces which is proposed to be opened at Allahabad on the lines of the Agra medical school.

These are some of the topics on which you will all have to express your opinion; and I have not the slightest doubt that our benign Government will pay to our resolutions their most kind and considerate attention. But the object of our association will be but poorly fulfilled if our activities stopped with passing these resolutions. After all our status and respect is largely in our own hands; the more capable and efficient we become, the more abreast of modern researches we keep, the greater will be the confidence we shall inspire in the public, and greater will be the regard in which our superior officers will hold us. There is an almost unlimited field for research in India; and ever and anon there come to us very great opportunities for observing on a large scale the symptoms and peculiarities of particular diseases. I dare say some of you have very interesting experiences to communicate to others and it will be to us all a matter of pride if such men come forward to read papers before our annual meetings in ever increasing numbers.

I have not the slightest doubt that you all appreciate the great honour that Colonel Crawford has done to us by consenting to preside over this function and give us his valuable advice and counsel on general as well as professional matters. We all know him as a kind and sympathetic officer, ever ready to help us when help is needed; and it is sympathy that we need and value the most.

With these words, I now close, thanking you once again for taking all this trouble and sacrificing your valuable time and money for the larger interest of the association, and requesting you to overlook any shortcomings that you may have noticed in our arrangements for your stay here.

Mr. Bankey Lal recited his Urdu poem which he had composed for the occasion. Mr. Daya Nidhan then followed and in a neat little speech proposed Colonel Crawford, the president-designate to the chair. He was seconded by Mr. Kunj Behari Lal and supported by Rai Sahib Dr. Bhagwan Sahai Singh. The President was then garlanded by Mr. Murari Lal

Mr. Ram Narayan Lal, the Provincial Secretary then read the Annual Report:—

WORTHY PRESIDENT, LADIES AND GENTLEMEN,

As Provincial Secretary I have been charged with the duty putting before you a report on the working of the Association in the U. P. for the year 1918, on the auspicious occasion the third United Provinces Provincial Conference of the All-India Sub-Assistant Surgeons Association. It is my misfortune begin the report with gloomy feelings, for I am not unaware the feelings which have been uppermost in your minds, nor can I restrain my passions any longer which have been disturbing my mind for over six months; and hence I cannot proceed any further without expressing our deep and heartfelt sorrow for the irreparable loss which our class has sustained in the premature, sad and sudden demise of our revered and worthy leader, the chief pillar and founder of the Association; the late Dr. Ram Chandra, who, as our General Secretary, so ably held the reins of the Association since its very start. His death is therefore a great calamity to our class, he was so amiable, energetic, hardworking and self sacrificing that it is hardly possible to find the like of him to fill in the gap, for sometime at least. His death is a personal loss to me as he was my most intimate friend and a real guide. He always used to grapple the Association questions in a most masterly manner and sacrificed his health, comfort and money to uplift the class and the cause of the Association. To speak the truth, he lived for the Association and died meditating and dreaming of Association matters: his deathbed letter reveals the whole situation. Gentlemen, we have no alternative but to abide by the will of the all powerful Almighty and let us therefore pray that the departed soul may rest in peace in Heaven and that the merciful father may grant consolation to his dependents, friends and class. I, as in duty bound, would appeal to you, one and all, with all the force at my command, to perpetuate his memory by a suitable memorial. Coming now to the U.P. I regret to say that our death roll has been

rather abnormal this year and although I do not on this occasion propose to refer by name to all those on whom death has laid its cruel hand, still I must make mention of Rai Sahib Dr. Govind Prasad of Amroha who rendered such splendid services alike to the Government and the Association. Mr. Chirjeewan Lal, who attended the Agra Conference last year as a representative from Gorakhpur Branch, has also left us in mourning. We deeply deplore the loss of Rai Bahadur Dr. Qanojilal and Mr. C. M. De who, as professors in the Agra Medical School for a very long time, have contributed so much to the medical profession, especially to the Agra Medical School and its students. All these departed souls have left behind them memories of useful and disinterested work for all of us to profit by.

WAR AND OURSELVES.

We are meeting here to-day under a different atmosphere to that of last year and are extremely gratified to see that the gigantic war has after all come to an end and once more right has prevailed over might. The power which till quite recently was terrorising the whole world with scientific murder and bloodshed is trembling today before the knees of our King-Emperor. The defeat of the enemy is complete and crushing, and the cause of small nations to defend which our King-Emperor drew the sword has been upheld. During this world war the services of the medical men assumed the greatest importance and the sacrifices made by them in general are unparalleled. The noble department to which we have the honour to belong has proved in unmistakable terms that the man in need is the man indeed. It is a matter for pride that the members of the Sub-Assistant Surgeon class have stood the test so boldly even under the most discouraging conditions and the part which they have played during this war has upheld the tradition of the class. They have not only suffered innumerable difficulties and hardships but also sacrificed all their comfort and money with the sole object of doing their duty to the King and country. We can now boast of having mitigated

the sufferings of humanity to a considerable extent and of having won a record for the future generations also. I am proud of my class and congratulate all those who have served in the war upon the splendid way in which they have acquitted themselves. We are therefore sure of receiving better treatment at the hands of the Government in future and of our services being rewarded in a befitting manner. We congratulate most heartily our benign Government for the successful issue of the War and tender our deep sense of loyalty to our Most Gracious Majesty The King Emperor.

AIMS AND OBJECTS OF THE ASSOCIATION AND ITS BRANCHES.

You are all aware that the association was founded at Bombay in 1906 with the laudable object of elevating the status and furthering the prospects of Sub-Assistant Surgeons by advancing the scientific, social, moral and material interests of the class. It would be telling upon your valuable time if I were to narrate here the past history and working of the association since its start. The real working of the association in the U. P., is not of very long duration as it was only in 1913, when the Dehra Dun branch was started to represent the United Provinces in the All-India Sub-Assistant Surgeons Association, as the Agra Branch had already faded in 1907 after holding the 6th Conference with great pomp and show. The working of the Dehra Dun Branch is known to you all; it has kept up the spirit and zeal with which it started the work. It held the 1st Provincial Conference in 1916 under the able Chairmanship of Colonel Fischer, I.M.S., when we had the honour of being graced with the presence of H.E. Lord Chelmsford, the Viceroy and Governor General, and the Conference proved a great success. The 2nd Provincial Conference was held at Agra in 1917 under the guidance of Colonel Omeara, I.M.S., and this was by no means less successful. But I regret to note that the Agra branch has again gone into a deep slumber after the Conference, though I am glad to see here its representative and am confident that on his return to Agra he will infuse new spirit into the members of his branch. The

Benares Branch came into existence in 1914 and we were most fortunate in getting hold of a most enthusiastic and hard working Secretary in Dr. Brij Ballabh Mathur and it is due to his untiring zeal and energy that we are all gathered here to celebrate our third Provincial Conference in the famous city of Benares. It will not be feasible to describe in detail the working of this branch for 1918, but suffice to say that monthly and special meetings were regularly held, and at every meeting scientific papers were read, followed by lively discussions. But you must remember that all this is due to the sympathy, support and kind patronage of our worthy Chairman, Col. Crawford, I.M.S., the President of this Branch, who takes a keen interest in the welfare of our class and association. The sympathy and interest which he has at heart for us is manifested to-day. That in the midst of the multifarious duties of his exalted office he should have made it possible for him to preside over our deliberations to-day, is itself a proof of his sympathy for, and interest in, our class and association, and we offer our hearty thanks to him. The next branch which deserves our special attention is the Meerut Branch which has such a voluminous record of practical work that it will be superfluous to add anything to it. Among the new branches Aligarh requires special mention. It has held eleven meetings during the year under report and every meeting was presided over by Dr. Robinson, the Civil Surgeon and the patron of the branch, and in consequence the discussions on scientific subjects were always up to date and lively. You will be delighted to hear what keen interest Dr. Robinson is evincing in our class and our association. He has not only attended all the meetings at great personal sacrifice but has also given a substantial monetary help and contributed many scientific papers to the branch. It is hardly possible for me to describe all that he has done to further the interests of the Aligarh branch and its members and we are highly grateful to him for all this. The working of the other branches has been practically normal. At the end of 1917 there were 14 District

Branches in the United Provinces, three more were opened in 1918, *i.e.*, Saharanpur, Etawah and Bahraich, thus making a total of seventeen. The following is a list of them drawn up according to the scientific work performed by each during the year 1918:—

1. Benares, 2 Meerut, 3 Aligarh, 4. Lucknow, 5. Dehra Dun, 6. Fatehgarh, 7. Moradabad, 8. Fyzabad, 9. Cawnpore, 10. Muttra, 11. Bareilly, 12. Saharanpur, 13. Agra, 14. Gorakhpur, 15. Allahabad, 16. Bahraich, 17. Etawah. I am sorry to note that the latter five branches have done practically no solid work and they may rightly be termed as dormant branches. I am afraid that if things continue as they are at present these branches will have to be disaffiliated from the parent association till such time as they revive their activity, as a gangrenous limb into which no vitality could be cultivated must be amputated at all hazards to safeguard the rest of the body. I expected much from the Agra and Allahabad branches, the former being the seat of our alma mater and the latter the capital of the Province. It pains me to put these remarks in the report, but truth must be told for the safety of the association itself. I however hope that before another year elapses these branches will have regained their lost ground, when I shall only be too glad to take back these remarks. Through practical experience I have found that the successful running of a branch chiefly depends on the Secretary and if we have an energetic and enthusiastic Secretary the work will progress without any hitch, and as there lies a great future before us I would request you all to be up and doing and see that your choice always falls on the best possible men. It is out of my province to comment on the work of the United Provinces Provincial Branch; I would simply say that it has risen to each and every emergency and has tackled all the questions concerning our class in a most methodical way. The trust we put in it has been fully justified. The office bearers appointed to conduct the business of the Provincial branch for the year 1918 were Mr. S. L. Sarma, President; Mr. Bankey Lal, Vice

President; myself, Provincial Secretary; Mr. B. B. Mathur and Mr. Mohammed Usuf, L.C.P.S., Joint Provincial Secretaries; and a Managing Committee of 16 members from different District branches.

Scientific Progress.—The foremost aim of the association being to promote the scientific knowledge of the class let us see how far we have succeeded in our efforts to secure this end. During the short period of our existence we have proved our usefulness in more than one way. The profession of medicine is passing through rapid changes. The method of treatment of yesterday becomes obsolete today. New theories spring up day by day telling a great deal upon practice. One cannot compete with the times if he is not up to date in his profession. The Indian Medical Journal, the organ of the association is doing a great deal to achieve this end. At the same time regular branch meetings and reading of scientific papers under the guidance of men of superior merit and wider experience highly conduce to the scientific improvement of the class. We had regular meetings in different branches, where many important scientific subjects were discussed, both our equals and superiors taking part in the discussions. In this way our members are adding to their knowledge of the theory and practice of the science and the meeting of to-day bears eloquent testimony to it. Further there is the annual competition for the prizes offered by some of our generous members, by some I.M.S. Officers and other Indian gentlemen of our profession, and these prizes go a long way to stimulate self culture and to accelerate our progress.

The Social Progress.—It is a matter for gratification that our social progress is as considerable as our scientific progress. One great blessing for which we are so greatly indebted to the Association is the promotion of good understanding and friendly intercourse among the members scattered all over the country and even in foreign lands.

Achievements.—Our achievements in 1918, though not many, are of vital importance to the class and are as follows:—

The cataract circular has been done away with. I have reason to believe that the question of the increment of our pay is receiving the kind attention of the authorities and that the revised scale of pay will be introduced in the next financial year. The new scale will probably be the same as that of Bengal and Madras, *i.e.*, from Rupees fifty to Rupees hundred and twenty. Although the scale may fall short of our expectations yet we feel grateful because it is beyond doubt a step in the right direction. Our thanks are due to our sympathetic Inspector General, the Hon'ble Col. C. Mactaggart, C.I.E., on whose strong recommendations this relief, however small, is in sight. The Government of India is also appointing a committee to reorganize the medical services and we are confident that this committee will substantially improve the pay, prospects and status of Sub-Assistant Surgeons, both civil and military.

Our grievances.—Since 1914, we have been anxiously expecting that deserving Sub-Assistant Surgeons in this province would gradually be promoted to the grade of Civil Assistant Surgeon and though some of our brethren in the other Provinces have been promoted we find that we are still fed with mere hopes. We were told sometime back that the promotion would be given to the people returning from military duty with a record of good service. The Government of India never meant this; in the other provinces promotions have been given irrespective of military duty. Besides many Sub-Assistant Surgeons have already returned from military duty after rendering meritorious services in the field, and yet no Sub-Assistant Surgeon in the U. P., whether civil or military, has yet been so promoted. Are we to understand that we in the U. P. are inferior to our brethren in the rest of India? Our educational qualifications and professional abilities are in no way inferior to those of other provinces; rather I am proud to say that we are the products of the most up to date, well equipped and a first rate medical school in India, the Agra Medical school. We therefore most

earnestly and fervently pray that our good Lieutenant Governor, Sir Harcourt Butler will be pleased to redress this long-standing grievance by promoting the deserving among us to the grade of Assistant Surgeon. To stimulate healthy competition and enthusiastic work in the profession it is most essential that accelerated promotion should be awarded to the most deserving men as is being done in other provinces.

L.M.S. Scheme.—In my last report I have said enough and more about this burning subject, "The Agra L.M.S. Scheme." Further our President, Mr. S. L. Sharma, has compiled and circulated a booklet dealing with the subject in all its aspects, leaving nothing to be added to it. I would simply request the Government to introduce it without any further delay, now that the war has come to an end. Personally I am confident that before the new medical school is established at Allahabad the L.M.S. course will be an accomplished fact. Our chief aim is to systematise and standardise the medical education so as to enable us to claim registration in the United Kingdom.

There is no province in India but the U.P. where transfers of Sub-Assistant Surgeons are not notified in the Government Gazette and there is no reason why the procedure in vogue in the other provinces should not be observed in this province also.

Practically all the important and flourishing dispensaries are slipping out of our hands one after the other for no shortcoming on our part. This is a serious loss to the class as a whole. The Sub-Assistant Surgeons should not be deprived of these charges, as it was they who popularised the dispensaries by their tact, sympathy and specially good work.

The Sub-Assistant Surgeons of these provinces should also be exempted from the operation of the Arms Act as is the case in Bombay. Then I would urge on the Inspector-General of Civil Hospitals the desirability of defining the duties of the Sub-Assistant Surgeons in

sub-charge of District Hospitals and of allowing them to perform a certain percentage of major operations so that they may improve their knowledge of surgery. I believe you are aware that according to the new scheme our services are being transferred from Provincial to District Boards and we have to discuss our position under the new scheme in to-day's conference and submit our views, if any, for the consideration of Government.

A Word to Members.—The number of members on the roll is not gratifying, more than half of the total number of Sub-Assistant Surgeons in the U. P. still remaining aloof from the Association although they are fully aware of the benefits secured for them by the Association. Will it be too much if I appeal to you one and all to try your level best to enlist almost all the Sub-Assistant Surgeons with whom you come in contact? I am appealing to the members of the association, whether they are present here at to-day's meeting or not, to shake off their lethargy and enter into the field of activity;

Let the dead past bury its dead
Trust no future however pleasant
Act act in the living present.

I have appealed to you more than once to register yourself under the U.P. Medical Act and I take this opportunity of reminding you about it, as probably the new scale of pay will be allowed only to registered men. A little more, and I am done. I would not be doing my duty to the association and to the class if I were to finish my report without expressing our sincere and most hearty thanks to our most sympathetic and kind Inspector General, the Hon'ble Col. C. Mactaggart, C.I.E., M.A., M.B., I.M.S. We are extremely grateful to him for the several concessions which he has secured for us during his sympathetic regime. I hope you would not mind, rather you will be glad, if I recount below the several privileges which have been conferred on us through his recommendations:—

1. The abolition of promotion examination (from 2nd to 1st grade).
2. The satisfactory settlement of the question of

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Act act in the living present.

I have appealed to you more than once to register yourself under the U.P. Medical Act and I take this opportunity of reminding you about it, as probably the new scale of pay will be allowed only to registered men. A little more, and I am done. I would not be doing my duty to the association and to the class if I were to finish my report without expressing our sincere and most hearty thanks to our most sympathetic and kind Inspector General, the Hon'ble Col. C. Mactaggart, C.I.E., M.A., M.B., I.M.S. We are extremely grateful to him for the several concessions which he has secured for us during his sympathetic regime. I hope you would not mind, rather you will be glad, if I recount below the several privileges which have been conferred on us through his recommendations:—

1. The abolition of promotion examination (from 2nd to 1st grade).
2. The satisfactory settlement of the question of

S.A. Ss' quarters and the provision of good, comfortable quarters. 3. The establishment of a state medical board in the U.P. 4. The favourable resolution of the Government on the L.M.S. scheme of Agra. 5. Monthly disbursement of allowances for Jail duty instead of in a lump sum, and that at the end of the year. 6. Establishment of claims for transfer to other duties after performing the Jail duty for two years. 7. Satisfactory settlement of the question of allowances for "First aid" lectures etc., etc. Last but not the least is the question of increment in our pay which we hope to get very shortly.

May our present Inspector General of Civil hospitals be spared long to rule the destinies of our department! Gentlemen, I have tried your patience long, but I am deeply grateful to you all for the patient hearing you have given me. I pay my respects to the Chair and resume my seat.

The President spoke as follows:—

LADIES AND GENTLEMEN,—It gives me much pleasure to preside at this annual conference of the U.P. Branch of the All India S. A. S. Association and to see so many of you gathered here to assist in furthering the aims and objects of the association to which you belong.

I think the Secretary in his address has touched on most of the matters which are of interest to you at the present moment, and as there is a large amount of business before the meeting, I won't detain you more than a few minutes.

Now that hostilities have ceased and the victory of the allies is assured, I hope we will soon be able to welcome back to their civil duties, those civil S. A. Surgeons, who loyally responded to the call of duty and volunteered for active service, each of whom, in his own sphere, has done his bit to bring the great war to a victorious conclusion, and has upheld the good name and traditions of the branch of the profession to which he belongs, in lands other than India.

I am extremely sorry to hear that such a small percentage as 35 per cent. of you have registered your names under the

medical act. Your main *locus standi*, as in the case of other branches of the medical profession, is in being Registered Practitioners. I am sure the present state of affairs must be due to many of you having failed to understand the benefits of registration. It is within the power of every one of you to register yourselves, and I strongly advise you all to do so for your own benefit.

The opinions and ideas of an association of registered practitioners cannot fail to bear more weight with Government, the public and the profession at large than the opinions and ideas of a body of medical men of whom only 35 per cent are on the medical register.

I understand that the revised rates of pay, which I know from experience you thoroughly deserve, have gone up to the Government of India for sanction, and I hope we will see them included in the U. P. budget for the coming financial year.

Ladies and gentlemen, I will close these few remarks by wishing your association all success in the future.

The President then called upon Dr. Lekh Raj Singh of Aligarh to read his paper on "Relapsing fever." Mr. Daya Nidhan followed and discussed the various points raised by Mr. Singh. The next paper was that of Mr. Bimala Charan Sen Gupta on "Ankylostoma." This was discussed by Dr. Singh. After a vote of thanks to the chair the conference adjourned for group photo. After refreshments the conference resumed its sitting and passed the following resolutions.

Copy of resolutions passed at the 3rd U. P. Provincial Conference of the All-India Sub-Assistant Surgeons' Association held at Benares on 19th and 20th January 1919 under the presidency of Col. Crawford, I. M. S., Civil Surgeon, Benares.

(1) That this conference on behalf of the Sub-Assistant Surgeons of the United Provinces of Agra and Oudh, tenders its deep sense of loyalty to His Most Gracious Majesty the King-Emperor.

(2) That this conference begs to tender its hearty congratulations to the British Government and its allies on the decisive victory achieved in the world war, fought against a ruthless enemy in the cause of liberty and justice.

(3) That this conference begs to convey its deep gratitude to the Hon'ble Col. C. Mactaggart, C.I.E., I.M.S., Inspector-General of Civil Hospitals, U.P. for all his interest in the welfare of the S.A.Ss.

(4) That in the opinion of this conference it is high time that the allowances granted to S. A. S. for Jail, police, first aid, epidemic duty, sub-charge, dispensary-charges, canal etc., should be increased from Rs. 10-15 p.m. to Rs. 30 p.m. and accordingly prays the Hon'ble Col. C. Mactaggart to move the Government in the matter.

(5) That the war having happily terminated, this conference respectfully approaches the Government to introduce the Agra L.M.S. Scheme at an early date both in the Medical School at Agra and the one to be opened at Allahabad.

(6) That this conference respectfully requests the Government to appoint two L.M.P's. as lecturers in the new Medical School to be opened at Allahabad, just as two lecturerships have been reserved for Assistant Surgeons in the King George's Medical College at Lucknow.

(7) That the S. A. S. in the U. P. be exempted from the operation of the Arms Act as has already been done in some other provinces.

(8) That the U. P. Government be respectfully requested to follow the example of other provinces and promote S.A.S. of tried experience and merit to the rank of Civil Assistant Surgeon—*vide* Government of India No. 145, dated 12th October 1914.

(9) That compounders may be sanctioned for jail and canal dispensaries.

(10) That the Government be requested to appoint S.A.S. as Deputy Superintendents of Lunatic Asylums in preference to lay men as is being done in other provinces.

(11) That female Sub-Assistant Surgeons be treated as male Sub-Assistant Surgeons in respect of their pay, promotion, leave and pension and that they should be required to sign the bond for 5 years only on entering the service and that the present system of renewing the bond every third year should be done away with.

(12) That the period of temporary service of those who entered the service before the issue of the orders of the Government of India, G. O. No. 331-V. 35, dated 29th June 1915, be counted towards grade examination, *vide* U. P. Government Order No. 7251, dated 9th August 1912.

(13) That this conference requests the U. P. Government to recommend that persons possessing L. M. P. qualification be considered eligible to vote at the elections to the Local and Imperial Legislative Councils.

(15) That if communal representation is granted the S.A.S. class be granted one seat in each council to safeguard their interests.

The following office-bearers and members of managing committee were then elected.

President:—Khan Sahib Dr. Zahid Husain.

Vice-President:—Mr. Bankey Lal.

Provincial Secretary:—Mr. Daya Nidhan.

Joint " " Brij Ballab Mathur and

" " Lekh Raj Singh.

" " R. N. Trivedi.

Treasurer

Organising Secretary and Auditor, Mr. Bhagwan Sahi Singh.

Members of the Managing Committee:—

Messrs. S. L. Sharma, K. B. Verma, Ramnarayan Lal, Mohommed Yousuf, Rupkishore, Manna Lal Sharma, Abdul Shaker Khan, C. S. Sharma, Morori Lal, Methoo Lal, Shiv Dutt, Shyama Shanker Shukla, Azizuddin, Baikunthnath, Panna Lal Sood and Krishen Sahai.

Mr. Daya Nidhan then thanked the members of the Reception Committee and the Benares Branch for the nice arrangements made for the delegates' lodging and boarding etc.

Statement of account of the Family Fund for the month of August 1919.

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THE INDIAN MEDICAL JOURNAL.

Income.		Expenditure	
Name of item.	Amount	Name of item.	Amount.
Balance on the 1st August	RS. A. P.	Clerk's salary. Paid B. N. Dixit	RS. A. P.
Deposit for calls up to	125 4 6	Purchase of Postal stamps	15 0 0
47-48	...	Deposited in the Postal Bank	5 0 0
49-51	3 0 0	Registered letters to the new members	200 0 0
52	7 0 0	Purchase of three chairs as per bills No.	1 0 0
53-54	7 0 0	140 and 142	...
55-59	26 0 0	Printing charges of Receipt books as	15 12 0
60	102 0 0	per bill No. 146	34 12 0
61-62	55 0 0	Expenses	271 8 0
Further call	237 0 0	Balance on 1st September...	388 13 0
Membership Fee	57 8 6		
	40 8 0		
	660 5 0	Total	660 5 0

S. PATVARDHAN,
Manager.

G. A. DESHPANDE,
Secretary.

S. N. SHARANGPANI,
Director.

Statement showing cash transactions from 1st February 1919 to 31st July 1919.

6

Description.	Cr.	Dr.
	RS. A. P.	RS. A. P.
Subscription from old members	4,642 0 0	Amount sent to the Editor ... 1,400 0 0
Admission Fees from new members	74 0 0	do. through the General Secretary ... 500 0 0
Subscription from new members	87 8 0	Travelling allowance to Delegates ... 717 1 0
V. P. Postage Amount recovered	91 8 0	Amount sent to Branch Secretaries ... 10 0 8
		Amount sent to Provincial Secretaries ... 30 0 0
		Cost of one wooden box with lock and key ... 16 13 0
		Stationery for office ... 45 9 0
Total	4,895 0 0	Printing charges ... 29 2 0
		Printing charges to former Provincial Secretary, U. P. ... 9 13 0
		Salary to Clerk ... 20 0 0
		Amount sent to Branch Secretary, Ahmedabad for 1918 ... 40 6 0
		Postage charges of Provincial Secretary, U. P. for 1918 ... 25 14 0
		Postage on V. P. Ps. ... 216 14 0
		Postage on advertisement ... 4 7 6
		Postage for office ... 15 9 9
		Telegrams ... 6 11 0
		General charges ... 9 3 8
		Amount in the Punjab National Bank, Limited ... 1,659 2 0
		Amount on hand on 31st July 1919, ... Rs. 138-6-6
		Total ... 4,895 0 0

KARACHI,
10th August 1919.

Sanctioned (with the General Account for Rs. 9-8-30)
AHMEDABAD. }
31-8-19.

ROCHIRAM,
Honorary Secretary.

JOSEPH BENJAMIN,
Chairman, Finance Committee.

* P. T. O. for details

STATEMENT SHOWING THE GENERAL CHARGES.

	Rs.	A.	P.
Cost of thread, needle and sealing	...	0	4 3
Money Order Commission on Rs. 5, sent to the Secretary, Baroda	...	0	1 0
Cost of V. P. Money Order Forms	...	0	12 0
Garry Hire	...	1	1 0
Money Order Commission for the amount sent to Secretary, Agra	...	0	1 0
Money Order Commission for sending Rs. 9-13-0	...	0	2 0
Exchange charges paid to the Mercantile Bank for the draft of Rs. 500	...	0	10 0
Railway freight on a parcel of I. M. Journal for Madras	...	2	12 0
Money Order charges	...	0	5 0
Exchange charges on Rs. 500	...	1	14 0
Garry Hire	...	1	4 0
Money Order Commission on Rs. 10	...	0	2 0
Total Rs.	...	9	4 3

NOTICE.

The journals sent to the undermentioned members have been returned by the Post Office undelivered for the reasons noted against them. In a large majority of cases the reason for non-delivery is that the addressees could not be traced. We will therefore feel much obliged if any of our numerous readers can furnish us with the correct addresses of these members.

	Remarks of Post Office.
14. Mr. Maganlal Madanji Doshit, Kutvana dispensary, Kathiawar	Not known.
37. „ Hassan Din Dar, 108 C.F.A., M.E.F. 'D' c/o Base Postmaster, Basra	„
55. „ B. V. Chate, Parola dispensary, East Kandesh	„
108. „ S. S. Thakur, Dharwar, Indore	„
132. „ Gowrishankar Lildhar Vyas, Olpad Surat District	„
201. „ Moro Pandurang, I. S. Hospital Peshawar	Left.
202. „ Mohanlal Nageshwar Shukla, Aden...	Left.
205. „ Balakrishna Mahadev, Wadia's dispensary, Mahim, Bombay	Not known.
209. „ Ganesh Vitthal, Parner, Ahmedabad.	„
254. „ Manibhai Lallubhai, Satlasana, Mahikantha	„
261. „ Annaji V. Gokhala, Rat Trapping Operations, Mahabaleshwar	„
278. „ Balakrishna Babaji Lady Willingdon War Hospital, Bombay	„
290. „ Purushottam Hairbhai, Randar, Surat.	„
296. „ P. J. Andrews, Machrich, British East Africa	„
324. „ Manohar Prasad, Bhandar, Gwalior...	(In Hindi).
352. „ Lalji Pragji, Prince of Wales Hospital, Dhrangadhra, Kathiawar	„
385. „ Viswanath Dattatreya Joglekar, Military Hospital, Gwalior	„
417. „ Amarnath Puri, Mesp. Exp. Force c/o P.P.M. Bombay	(In Urdu)

	Remarks of Post Office.
463. Mr. J. R. Mukherji, Central Jail, Nagpur	Not here.
*477. „ R. V. Ban, Bhivadi dispensary, Thana	Refused.
541. „ J. M. Dhabat, S.A.S., Dwasa Camp...	Want of correct name of post town of destination.
568. „ B. G. Godse, Ghodpur dispensary, Poona	Not known.
694. „ Shama Rao Ramachandra, Lady Willingdon War Hospital, Poona	„
648. „ V. Birjee, Medical Practitioner, Lucknow	„
*675. „ Bhogilal H. Dvivedi, Nandol, Guzerat.	Refused.
733. The Medical Officer, Paladwa	Not known.
742. Mr. Brijdeo Narain, Medical Student, Patna	Left.
777. „ Pannalal Khanna, Pehowa, Karnan District, Punjab	„
800. „ M. V. Ramaniah Chetty, Sri Ramachandra dispensary, Secunderabad	Not known.
830. „ Bilash Chandra Roy, Medical Student, Patna	Refused.
860. „ Mathura Prasad, Temple Medical School, Bankipore, Moradpore	Left.
890. „ Rajaram, Combined Hospital, Dehra Dun	(In Hindi).
894. „ Bhanu Shanker N. Shukla, Junagadh Kathiawar	Not known.
908. „ Asardas Mangan Singh, Civil Hospital, Karachi	„
927. „ Sadaram, c/o Civil Surgeon, Bahraich.	„

	Remarks of Post Office.
*960. Mr. Mohtilal Reva Shanker, Bechraji, Mehasana	Refused.
1066. „ Nandkishore, Bhaidsahi, District Betel—(C.P.)	Refused; defective sight.
1096. „ R. P. Trivedi, Male Corps Lines, Karachi	Refused.
1114. „ Balbir Singh, Mankapur, Gonda	Not known.
1161. „ N. Jeevana Rao, Velur, Trichinopoly District	„
1193. „ Mohtilal, 4th year Student, Temple Medical School, Muradpur	Left.
1203. „ Madan Chandra Gope, Shergatty dispensary, Gaya	Not known.
1222. „ Jaganath Prasad Dubra, Narasingarh, Fyzabad	Refused.
1224. „ C. S. Mohan Rangam, Pallavaram, Chingleput District	Not known.
1234. „ S. C. Shrikande, Dongri Jail, Umarskhad, Bombay	„
1256. „ Chandrashanker Tulja, Khatri, Ahmedabad	„
1280. „ Mahomed Abdulla, Chuneer Br. Dispensary, Garbhird	„
1304. „ Ch. G. Culpadri, District Jail, Cuddalore	Refused.
1350. „ Gundaram Joshi, Military Hospital, Quetta	Not in India.
1359. „ Dasram, 1/5 Goorkha Rifles, M.E. Force c/o P.P.M. Karachi	Not known.
1360. „ Yeswant Vitthal, Civil Dispensary, Shaik Othman, Aden	„
1372. „ K. J. Salpekar, Kali Baori, via Dharmpuri (C.I.)	Left.

	Remarks of Post Office.
1394. Mr. Bhupatrai Prabhushanker Vaidya, Atkot, Kathiawar	Refused.
1407. „ Salibhai Usufally, Zampabazar, Surat	„
1447. „ T. David, Tirupatur, Madras Presidency	Not known.
1449. „ Shama Rao Ramachendra I.T. Hospital, Ghorpuri, Poona	„
1487. „ R. Pillai, 20 I.F. Hospital Longido, B. E. Africa	„
1517. „ Bhupal Mudaliar, Bact. Library, C. & M. Stn. Bangalore	„
1520. „ Manishanker Gopalji Hathi, Mandir Cutch	Refused.
1532. „ J. N. Bhattacharji, Kyansi, Burma.	Not known.
1544. „ Walayat Shah, Cantt. General Hosp., Nowshera	„

RECOGNITIONS AND DISTINCTIONS.

Through the courtesy of our friend Mr. T. C. R. Sarma, Sub-Asst. Surgeon, Mesopotamia Expeditionary Force, we have obtained the following list of our brethren who have won distinction during the late war. We confess that the list is by no means complete or free from inaccuracies, because it is said to have been compiled with the available information. Any addition or alteration to the list will therefore be gratefully acknowledged and published.

The Military Cross (M.C.)

Gopinath Agarwal	...	...	1915
Shinde, Ramkrishna Ganpat	...	...	1961

RECOGNITIONS AND DISTINCTIONS.

Order of British India (First Class).

Suhall Singh	...	...	1915
Abdur Rahman	...	...	1917

Order of British India (Second Class).

Gauri Shankar (I.O.M.)	...	...	1918
Kishan Chand	...	...	1918
Nabi Ahmed Sadiki	...	...	1918
Pir Baksh, (Khan Saheb)	...	...	1916
Rafi-ud-din Khan	...	...	1915
Muhammad Khan (Khan Saheb)	...	...	1917
Sher Muhammad (Khan Saheb)	...	...	1916
Alah-bandha	...	...	1915
Tilok Singh	...	...	1917
Williamson, J.	...	...	1918
Elijah Abraham	...	...	...

The Indian Order of Merit (First Class).

Pargan Singh	...	...	1916
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(Second Class).

Maula Baksh	...	...	1915
Tek Chand	...	...	1915
Rane, G.K.R.	...	...	1914
Pandit Shanker Doss	...	...	1914
Harnam Singh	...	...	1914
Viroj-Lal Umed Ram Pandit	...	...	1915
Nagindar Singh	...	...	1915
Ramasami, Munasami	...	...	1915
Khuperkar, Keshav Waman	...	...	1915
Shaik Muhamed Dada Sahib	...	...	1916
Ram Singh	...	...	1916
Pargan Singh	...	...	1916
Ghaus Muhammad	...	...	1916
Bhagwan Singh	...	...	1916
Ishar Singh	...	...	1916
Israel, Daniel Gnanapragasam	...	...	1917
Hukham Singh	...	...	1917
Mulla Singh	...	...	...

Daulat Singh	...	...	...	1917
Govindasami Pillai, Tanjore	Ramaswami	...	...	1917
Mul Singh	...	...	...	1917
Riyazuddin	...	...	...	1916
Arfan Das Gosain	...	...	...	1917
Rahim Bakhsh	...	...	...	1918
Abdul Rahim	...	...	...	1918

Indian Distinguished Service Medal.

Gaurie Shankar	...	...	...	1915
Zafar Hussain	...	...	...	"
Mahadeo Parshad	...	...	...	"
Narayanparshad Sukul	...	...	...	"
Mohan Lal	...	...	...	"
Barkatullah	...	...	...	"
Fazal Ahmed	...	...	...	"
Saminathan Naidu, Narayanasami	...	...	...	"
Pohlo Ram	...	...	...	1916
Kishan Singh	...	...	...	1916
Mathura Parshad Sarswit	...	...	...	1916
Bhagwan Das	...	...	...	"
Bishan Singh	...	...	...	"
Mulchand Sharma	...	...	...	"
Muhammad Umar	...	...	...	"
Tika Ram	...	...	...	"
Jaswant Singh	...	...	...	"
Karta Ram	...	...	...	"
Sudhama Ram	...	...	...	"
Chuhar Singh	...	...	...	"
Harnam Singh	...	...	...	"
Indar Singh	...	...	...	"
Abdul Ghafar	...	...	...	1917
Saiyed Muhammad Ejas	...	...	...	"
Sudhiriswar Sen Gupta	...	...	...	"
Mubarak Shah Khan	...	...	...	"
Rawail Singh	...	...	...	"
Suraj Pal	...	...	...	"

Reuben, Benjamin	...	...	...	1917
Saiyid Abdul Basit	...	...	...	"
Cornelius Sundararaj Gopal	...	...	...	"
Ghulam Haider	...	...	...	1918
Abdul Majid	...	...	...	"
Chintaman Gopal Gogate	...	...	...	"
Wahidyar Khan	...	...	...	"
Bendeshwari Singh	...	...	...	1919
Chanda Singh	...	...	...	1918
Bindraban Sharma	...	...	...	"
Kalathil Gopalan	...	...	...	"
Shaik Farid	...	...	...	"

Meritorious Service Medal.

Basant Singh.
Chhotubhai Bhikhubai Joshi.
Damodar Janardhan Prabhvalkar.
Ganga Persad.
Fazl Din.
Egbert Dial.
Lachman Das.
Matayi Govindan.
Ongden.
Rampersad Sharma.
Birendra Nath Das.
Brindaban.
Ghaus Mohammed.
Harishchandra Rao Govindarao Shirke.
Jit Singh.
Mohan Lal Nagesar Shukal.
Mul Singh.
Muhammad Amir.
Muhammad Hussain.
Ramditta Mall.
Ram Krishna Anant Parab.
Vyasam Venkataramayya.
Whahidyar Khan.
Iswari Pershad Sharma.
Jugal Kishore.
Kishan Singh.
Maung Tin.
Ram Rao Anand Rao Doctor.
Suleiman Gulab.
Sahib Singh.

The Indian Medical Journal.

Vol. XIII.]

OCTOBER 1919.

[No. 10.]

THE TEACHING STAFF OF OUR MEDICAL SCHOOLS.

Despite the several improvements in the curriculum of studies in our medical schools and our resolutions at each successive conference to increase the course of study to five years in view to improve the quality and standard of medical education of the pupils, we are sorry to find that so far as the teaching staff is concerned the old order hath not changed yielding place to new. We have often heard complaints about the inexperience and incapacity of some of the teachers, and though some allowance has to be made for exaggeration, it is impossible to overlook the complaints as altogether imaginary or vexatious. Teaching is a noble profession entailing grave responsibilities and the teaching of medicine is all the more so. There is probably no profession in which practical experience is of greater value and importance than in medicine. And yet not infrequently do we find young medical graduates, fresh from the college, with hardly any practical experience in the profession posted as lecturers and instructors. Further, the frequent transfers of the teachers tell not a little upon the training and progress of the pupils and upon the enthusiasm of the teachers themselves. No wonder therefore that the medical schools in this country and their products are often viewed with scant courtesy and consideration.

We have often urged the importance of staffing our medical schools by men of tried ability and mature experience in the profession, but the time has not yet arrived for the introduction of this salutary reform. Some time ago when we interviewed some of the Superintendents of Medical Schools we were told that the necessary improvements were in contemplation and that, apart from the Superintendents being officers of the I. M. S., the Assistant Superintendents also would be recruited from the same cadre. We felt gratified by this pronouncement, though it was only informal, because it held out the prospect of the standard and system of medical education being brought on a level with those obtaining in the United Kingdom. But we are disappointed to find that nothing has yet been done in this direction. Hope deferred maketh the heart sick. We want that the course of studies and the methods of training should correspond with those obtaining in the United Kingdom, so that our qualification may be recognised by the British Medical Council. We cannot be unambitious, nor can we put up with the pinpricks, so long as it is not impossible for us to progress and attain something higher. The importing of raw, inexperienced men as teachers and lecturers in medical schools should be done away with, and men of unquestionable merit and wide experience, no matter where they are found, whether among Europeans or among Indians, whether among the M. Bs or L.M.Ss. or among the humble diploma-holders, the L. M. Ps, should alone be entrusted with the responsible duties of training the pupils to the profession. As far as practicable specialists should be chosen and these should teach only subjects in which they have specialised.

While at the bedside of patients, various characteristics of diseases are observed by the pupils and to guide them in the right direction it is necessary that men of sound learning and wide experience should give them clinics, for, without a good and adequate clinical training, the pupil cannot hope to make an efficient and successful medical man. This, then, is a matter which calls for the immediate attention of the authorities concerned if the stigma which now attaches to the training given in our medical schools, which are maintained at such great cost and for such a benevolent purpose, has to be removed. In the eighties and the early nineties of the last century, when the western system of medicine and surgery had hardly implanted itself in the country, the pupils had the great advantage of being taught by distinguished members of the Indian Medical Service. Since then the science of medicine and surgery has advanced marvellously. The experiences of eminent medical men and the revelations of researchers are daily adding to the medical literature. The western system of medicine has practically been supplanting the eastern and the demand for it is growing day by day. Every year there is a flood of applications from educated young men for admission to the medical schools. It is therefore of supreme importance that the teaching in our medical schools should be up-to-date and as far as possible by specialists possessing wide experience. In the interests of the future Sub-Assistant Surgeons and licensed medical practitioners and of the public we appeal to the authorities concerned to reorganise the teaching staff so as to secure for the pupils a training commensurate with the needs of the times. In doing so we do not mean any offence to the products of our medical colleges or to those who are now on the teaching staff of medical

schools. Some of them have proved themselves to be eminently deserving of their position and even more, but the evils of appointing raw and inexperienced medical graduates as instructors in medical schools is often so pronounced that we cannot help being outspoken in the matter.

THE COMING JAIL COMMISSION.

We are very happy to learn that our worthy president, Dr. S. L. Sharma of Meerut has been nominated as a witness to give his evidence before the coming Jail Commission. Dr. S. L. Sharma is one of the most successful medical men of Meerut whose position in our Association, long experience and intimate knowledge of the various grievances and disabilities of our class fully entitle him to be our spokesman before the Jail Commission. Those of our class who can offer any suggestions or information for his guidance are requested to communicate the same to him direct.

NOW READY.

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[No. 11.]

PRESENT POSITION OF THE TREATMENT OF
SYPHILIS

By

MR. AMBARAM HARISHANKER JOSHI.*

THERE is a pretty long list of preparations—arsenic compounds and others—now-a-days presented to the medical profession for treating syphilis, and different degrees of efficacy are assigned to each of them. As it often becomes a puzzling question what faith to put on the statements advanced in favour of the efficacy of these drugs, or which of them to fix upon for use or trial in treating syphilis in its different stages, I think it will not be amiss to have a view of their comparative merits.

There are such drugs as *atoxyl* and *arsacelin*. The former of these, on trial, has proved itself to be so unstable in its character, and so toxic in its nature, that any attempt at describing it further will be a mere waste of time and energy. The latter is therapeutically little superior to the former, although, perhaps, a trifle more stable than it. Its high toxicity, however, renders it quite as useless as the other. The other preparations making up the list are:—Salvarsan; Neosalvarsan; Galyol, Anogon, and Intramine. Of these *Galyol* although containing $35\frac{1}{2}$ p. c. of arsenic, *i.e.*, 4 p. c. more than Salvarsan, is comparatively more toxic and less effective, and therefore does not command any appreciable

* Read before a meeting of the Baroda branch.

amount of attention from the profession. *Intraminc* is a harmless good drug, being free from irritating property and toxicity. It has, however, no effect in primary and secondary lesions, and is said to be of value in tertiary syphilis only. *Anogon* which is chemically di-iodo-para-phenol sulphonic mercury, is not much recommended, because it is insoluble in the ordinary solvents; the stability of its action is also open to doubt. The methyl sulphonate of amido-arseno-phenol, known in the trade as *Neosalvarsan* is a drug, which, it is true, does not present much difficulty about its solubility, but at the same time its spirillicidal property is diminished, and hence it shares the fate of the other drugs in being looked upon with doubt.

In view of the facts mentioned above, it would seem that *Salvarsan* alone remains master of the field. *Salvarsan* is the trade name for dihydro-chloride of the base amido-arseno-phenol. It has till now maintained its reputation as a reliable remedy for syphilis, and is no doubt superior to any of its rivals in the market, in spite of the fact that it is not without its drawbacks. The stability of its action cannot be guaranteed; the immunity it gives is not permanent, it lasts only for certain period, and then re-infection is imminent. The curative action of *Salvarsan* in syphilis consists in its power of destroying the causative agents, and setting free the endo-toxins which in their turn produce anti-toxins. Thus when the cure of syphilis depends upon a sufficient quantity of anti-toxin being formed in the system, if the administration of *salvarsan* fails in causing the tissues to produce enough anti-toxin it is useless to expect a cure; not only this, but, on the contrary, if an unduly large proportion of endo-toxin is liberated in the blood at once, it is likely to produce undesirable effects. Where syphilis is co-existent with disease of kidneys or bowels, the use of *salvarsan* is contraindicated, because, as Dr. Matson expresses it, "arsenic is excreted unchanged *via.*, intestinal mucous membrane and claims the attention of the kidneys towards these channels."

Salvarsan can be administered both intravenously and intramuscularly. Of these two methods the intramuscular is preferable as it is a harmless method, attended with no ill-effects except some local irritation; but fortunately, even this little difficulty of the intramuscular method, *i.e.*, the irritability, is removed by Major Frost of the Laboratory of Venereal diseases at Poona by preparing an emulsion as shown below:—

Firstly :—Take two parts of pure Glucose and dissolve it in one of distilled water.

Secondly :—Of the solution formed as said above take 17 c.c., and add to it 2 c.c., of Guaiacol and 1 cc. of phenol.

Thirdly :—To 1 cc. of the above add 6 grammes of *Neosalvarsan* dissolved in a few minims of distilled water.

The product thus arrived at can be injected intramuscularly without causing local irritation or any other trouble, and is recommended for further trial.

INFANTILE DIARRHOEA.

BV

Mr. MOHAMMED YUSUF, L.C.P.S. (Bom.), S.A.S, *Fategarh**

ONE of the dreadful diseases which often and cruelly carry away our dear young ones from our laps is Infantile Diarrhoea. The disease somewhat corresponds to Broncho-pneumonia as both are nearly equally fatal to infants, the former occurring in summer and the latter in winter. Both excessive heat and exposure to cold lower the vitality, but the former gives rise to gastro-intestinal troubles and the latter to lung troubles. The gastro intestinal canal of young children is aseptic at its birth, but as soon as the child takes milk or any such thing it becomes infected with bacteria of different types which remain harmless as long as the child is healthy. When, however, the vitality of the child is lowered on account of high

* "Road before a meeting of the Fategarh branch of the Association"

temperature these germs become active, develop in the intestinal contents, produce toxins and other abnormal products, which being highly irritant, cause enteritis with or without diarrhoea, cholera infantum &c. The symptoms vary in severity from slight dyspepsia to collapse. One prominent cause of this disease is error of diet, specially in bottle fed babies, but in this country bottle-feeding is more the exception than the rule, and yet we come across as many cases of Infantile diarrhoea as perhaps in any other country where bottle feeding is largely resorted to. The only explanation for this can be the uncleanness of the mothers' breasts and the baby's mouth. Babies get solid food earlier than they ought to, and this causes irritation and congestion of the intestinal mucosa.

Over-crowding has also a marked effect. When the baby is brought from a mofussil habitation to an over-crowded city or the mothers join in some ceremony and are packed up in a small house many babies are affected.

We come across cases of varying degrees of severity, from enteritis without diarrhoea to cholera-infantum with collapse, but the troublesome thirst is always a prominent symptom, and the relatives attach so much importance to it that they sometimes only complain of thirst. I think that in the hot season this symptom is suggestive of diarrhoea in children and a brief inquiry will confirm the diagnosis. But sometimes malaria also affects the gastro-intestinal canal and produces symptoms similar to those of diarrhoea but an examination of the blood under a microscope will solve the doubt. In the absence of a microscope quinine should be given with small doses of grey powder or calomel as the case may be, and the symptoms will disappear rapidly.

Treatment.—It is impossible to fix a hard and fast line of treatment that would suit to all cases, whatever the symptoms and stage of the disease. Each case should be treated with reference to its own condition. If the case is seen early give one sufficient dose of good castor oil (Naini jail castor oil is not good for children in these cases). If, owing

INFANTILE DIARRHOEA.

to the irritability of the stomach castor oil cannot be retained give calomel in divided doses. When the bowels are clear give alkaline or acid astringent mixtures as the case may be, having regard to the following points. If the stools are fermenting and acid, give alkaline chalk mixture adding bismuth, Tr opil, kino, catechu, etc., according to requirements. Green stools, if acid, yield to this treatment, but if they are alkaline give acid mixtures, such as acid opium mixture. If undigested curd in stools, give zinc oxide gr. i, Tr. opil m. ℥, glycerine m to aqua dr. i. every 4 hours. If curd persists give rhubarb and soda. If motion contains mucous use castor oil emulsion. If stools are foul smelling give intestinal antiseptics, such as Sod: salicylas with alkaline chalk mixtures and glycerine acid carbolic or glycerine iodi with acid mixtures. In cholera infantum, if seen early, give a hypodermic of morphia. If seen collapsing give saline rectal injection about 8 oz. every 2 hours and pituitrin, strychnine and alcohol according to requirement. Good brandy, one ounce with water, may be given in 24 hours.

HOOKWORM DISEASE

BY

MR. JAGDISHRAM.

NOWHERE do we find the relative values of the drugs employed for hook-worm disease, their limitation of action and drawbacks dealt with thoroughly, although much has been written of late on hook-worm disease and its treatment. Most fanciful statements are made in some papers about the magical cure of the disease by Chenopodium, Thymol and Manson's mixture and some papers even assert marvellous success with Infusion of Quassia. The result is confusion worse confounded.

I was connected with Ankylostoma research for a year under Captain Wrench M.D., and the few facts of a practical nature which I state below would not be without interest to our

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class who have to treat villagers, among whom this disease is much prevalent. Indeed, next to Malaria it is the most common trouble in India.

History of the disease.—Hook-worm disease is produced by pollution of soil. The disease is said to be alluded to in the ancient writings of Egypt.

The worm was more or less known in the 18th century, but its importance as a causative agent of the disease was determined only in 1879, when fatal cases of anaemia were found among labourers working in a tunnel in America.

Predisposing causes.—The disease arises from pollution of soil. This pollution inevitably occurs when large bodies of men are herded together without proper latrines or disposal of excreta. In big labour organisations such as tea gardens, sugarcane factories, etc., where this state of affairs exists, and where carriers and healthy men pass excreta in one and the same place, the disease assumes a tremendous magnitude. The low power of resistance and inability to secure the necessary preventive measures make these men an easy prey to the disease. These labourers, when back to their places, work as carriers and infect the population. The disease has now become so common that in the Madras Presidency, as reported by Dr. Mashkar, 95% of the rural population, which supplies labour to Assam, Burma and Strait Settlements, suffer from this disease.

Mode of spread.—The villagers pass stools under the shade of trees, and the warmth and moisture there make it an ideal place for the eggs to hatch out. The soil swarms with larvae, and any one treading it with bare feet gets easily infected. This observation is confirmed by the fact that dwellers in large towns with proper disposal of faeces by sewage or other systems never suffer from this loathsome disease.

Exciting causes.—Hook-worm is the exciting cause. Two varieties are generally found among human beings, one is *Ankylostoma duodenale*, which has four claw-like teeth and is

bigger than the other variety. The other is *Nectar Americans* which is smaller, and whose neck is curved like a hockey-stick: we have not come across this variety as yet. Clinically both the varieties produce identical disease.

Characteristic of sexes.—The male is smaller and thinner than the female. It measures one-third of an inch and is a saprophyte. The female is thicker and longer. It measures about half an inch. It sucks blood by burying its mouth deeply in the mucus layer of the small intestines. In a case examined post-mortem we found innumerable punctate haemorrhages in the duodenum, jejunum and ileum, while the worms were sticking fast and required some pulling to detach them.

Hook-worm eggs.—They are oval in shape. The shell is thin and transparent and the yoke segmented. The segmented yoke is peculiar only to this ova. The eggs are not capable of hatching out in the intestines, but finding a suitable soil outside they grow into larvae.

Route taken by the larvae.—The larvae piercing through the skin reach some vein or a lymphatic and are carried to the right heart whence they reach the lungs through pulmonary circulation. A majority of them are rejected in the sputum, but some sputum swallowed carries them in the small gut, where they mature into adult worms, and after fertilisation begin to shed eggs. One of our chenopodium cases, after remaining negative for a long time, suddenly turned positive on the 51st day. It can be explained that the parasite was travelling in the body of the patient, and reached late when treatment was over.

Method of concentration of eggs for examination.—No other method, such as emulsion in lysol, saline, petrol, etc., approaches the ether and hydro-chloric acid method. We pursued the latter method and found it 3 to 4 times better than the other methods. Besides its efficiency it saves time and is devoid of filthiness.

Description of Ether and Hydro-chloric Acid method.—From a specimen of faeces for examination, take five bits of

the size of a pea from five different places. Put them in test-tube containing equal parts of ether and hydrochloric acid 33 % about a drachm each. Cork the tube, and vigorously shake the contents until the faeces go into emulsion. Next pass it through a piece of gauze and then centrifuge it. Ether dissolves fats and fatty acids, hydrochloric acid dissolves certain proteins, straining rejects coarse particles not soluble in ether and acid centrifuging brings down the eggs to the bottom along with those fine food particles which are insoluble in the reagent. They are pipetted off from the bottom and examined under microscope. They are seen in large numbers and so clearly that they can be easily identified under a low power. We examined the specimens under thick unbreakable cover slips made by cutting microscope slides into three equal parts. The area examined therefore was one third of a slide.

Signs and Symptoms.—1. Very small infections don't show any symptoms. In fact most of these cases regarded us as unnecessarily bothering them and keeping them from going home. In such cases diagnosis is possible only by finding ova on microscopical examination of stools. 2. Heavy infections have waxy-colour, swollen cheeks, abdomen, palpitation, and epigastric tenderness. There are other signs of bloodlessness, such as head-ache, vertigo, bad appetite and constipation, lack of physical and mental energy. Haemoglobin is extremely reduced and in a case under our observation we found it as low as 15%. Palpitation particularly is very marked. Some of the patients seemed to ignore every other trouble and fix their mind solely on this complaint. In serious cases oedema is present on the ankles. Urine shows albumen but no casts. Children when suffering from this disease get into the habit of eating earth probably to neutralize hyperacidity which is present in the earlier stages of this disease.

Diagnosis.—Stools should always be examined for hook-worm ova in cases: 1. In which no other cause is determined

for anaemia, and (2) of cases of anaemia which begin early with palpitation. The disease is differentiated from:—

1. Beri-beri by the absence of multiple neuritis.
2. Chronic nephritis by the absence of casts and cardiovascular changes. An oversea case diagnosed as chronic nephritis was admitted in our hospital. On examination of stools we found 3,000 ova per cover slip.
3. Malarial cachexia by the absence of fever, enlarged spleen and liver.
4. Heavy round worm infection by finding adult round-worms or their eggs in the stools. We came across a few cases in which this worm alone was responsible for anaemia.

Of course positive diagnosis can be made only by finding ova in the faeces. But if microscope is not available, diagnosis may be made by finding adult worms in the stools after giving a dose of thymol.

Prognosis.—Almost all our cases got well. The disease has a weakening effect and the patient is said to be easily overpowered by inter-current diseases. Convalescence is very dilatory. Patients showing no ova after treatment or only a few were found to make annoyingly slow progress in health. After all the disease arises by slow poisoning caused by absolute disregard of the loss of health. Rapid recovery is not imaginable.

Prophylaxis.—1. To find out carriers and treat them.

2. Proper disposal of faeces. (This is rather a vast subject and better to refer to books on this subject. Ordinarily it can be managed by plentiful construction of privies. Trenches may be substituted if there is no conservancy arrangements. They may be filled with earth, and fresh ones dug out.)

3. Warning people against going bare-footed to polluted places. Distribution of leaflets giving a few simple instructions for the prevention of the disease.

Treatment.—Of drugs we tried chenopodium oil, thymol, Manson's mixture, some country drugs and others.

CHENOPODIUM TREATMENT.

Time and mode of administration.—The patients took their midday meals as usual. At 1 p. m., 2 p. m. and 3 p. m. they were given a capsule containing 16 minims of the oil and at 4-30 p. m. 6 drachms of castor oil. This time of administration was selected to lessen the toxicity of the drug after food and also because it suited our convenience.

Prescribing hints.—We used to fill the capsules only on the day of administration. This precaution is essential as chenopodium kept long in capsules is known to become more toxic.

Its effects on patients.—This drug is highly toxic, known to cause deaths on several occasions. Although no deaths occurred among our cases, our observations convincingly attest to the danger of the drug. In 151 treatments, 32 had vomiting, a fairly large number had severe giddiness, and a few slight collapse. 9 cases could take only two capsules and one only one, on account of these symptoms to a marked degree. One case complained of deafness but we could not observe him long, as he was discharged from the hospital. Another case turned stone deaf after only two capsules, but suddenly recovered on the 5th day.

It is thus clear that the use of this drug is fraught with danger. Its indiscriminate use is to be avoided. On no account should it be dispensed to patients attending the out-patients department of a hospital. It is a cardiac depressant and irritant.

Poisoning is shown by vomiting, giddiness, depression and drowsiness, and it can be treated by 1. Avoiding further dose. 2. Free purgation. 3. Stimulants.

RESULT OF TREATMENT BY CHENOPODIUM.

Of 45 well observed cases.

				Percentage of cure.
10	were	cured	by 1 treatment	... 23 %
10	"	"	" 2 "	... 23 %

Percentage of cure.

7	were	cured	by 3 treatments	... 15 %
7	"	"	" 4 "	... 15 %
5	"	"	" 5 "	... 12 %
1	was	"	" 6 "	... 2 %
4	were	not	cured by 10 "	

One was apparently cured by 10 treatments, but relapsed on the 51st day. This, as already stated, may be due to some larvae reaching the intestines when chenopodium treatment was over.

Chenopodium treatment did much good even to those shown as "not cured". They should be regarded as cured for all practical purposes. Improvement in these cases can be judged by the reduction of ova, after treatment.

I quote here a case which had the largest number of ova among the unsuccessful cases.

Number of ova before treatment:	Number of ova after treatment.									
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th.
78.	4.	2.	3.	30.	3.	1.	0.	3.	1.	1.

Thymol Treatment.—1. A purgative of soda sulph: drachms V was given the night before. 2. 30. grs. of powdered thymol in capsules were given early the next morning, followed two hours later by another similar dose of thymol. Two hours later a dose of soda sulph: was given.

Prescribing hints.—No oil, fat or alcohol during treatment; even milk was checked. Alcohol and thymol are solvents. Serious consequences might arise from neglect of this precaution. On no account castor oil is to be given as a purgative. This treatment is decidedly unsuitable for acute and subacute dysentery cases and cases suffering from nephritis and active heart disease. Very weak patients are not suited to thymol treatment.

Its effect on patients.—In our series of cases it produced nothing beyond thirst, burning sensation in the epigastrium and slight vertigo.

Symptoms of poisoning. In severe poisoning the symptoms above stated are exaggerated and there is quick and feeble pulse with respiratory trouble.

Treatment of poisoning.—1. Plenty of water to drink. 2. Saline purge to avoid further absorption. 3. Ammonia inhalations and strychnine injections as cardiac stimulants.

Result of Treatment by Thymol.—Of 12 well observed treatments, only 4 were cured,

one	by	3	treatments	—8 %
"	"	4	"	—8 %
two	"	5	"	—17 %

The unsuccessful cases too received considerable benefit. The biggest infection among them showed reduction of ova as below

Number of ovae after treatment—

Before treatment	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
52	1	1	1	1	1	1	1	1	1	1

3. Manson's mixture (chloroform m 45, Eucalyptus oil m 30, and castor oil 10 drachms). This time-honoured mixture is much applauded in books and papers, but our standard course of 6 treatments could not sterilize any of the 19 cases kept on it, although there was considerable reduction of ova. It produced a brief coma in a few cases which passed off itself.

Indigenous vermifuges and vermicides, such as *Vernonia anthelmintica* (Bapchi) *Butea* seeds (Palaspopra) *Embetia ribes* (Bacbrang) were given a thorough trial in the hope of finding a treatment which may be both easy and cheap. But all of them failed. Liqr Hydrargyri Perchl in one drachm doses three times a day for 10 days, proved no success. A mixture of bitters consisting of gentian, rhubarb, chiretta, quassia, calumba also failed. Essential oils such as clove oil, peppermint oil, copaiba also failed, excepting turpentine which succeeded in curing only one case with trilling infection. This meagre success of turpentine is hardly any recommendation for its general use, as it is a renal irritant.

Treatment of this disease, as is clear from the facts stated, is a tedious affair. We gave 6 courses of treatment, those not yielding to six were declared as uncured. Difficulty in treatment arises as no standard is fixed for cure. Cure is popularly understood to mean complete absence of ova from intestines, but if this rigid test is applied even the best drugs known fall short of expectations. The drugs if continued for a long time may produce a classical cure, but continued use is impracticable as the class among whom it is common cannot bear the financial loss caused by unnecessary long treatment.

Another fact which we observed is that while some cases passing large number of eggs show no appreciable signs, others showing a similar number look quite ill. Therefore one should avoid concluding that ankylostoma is the cause of every pathological condition, and losing sight of other factors at the root of the illness. Treatment so far reasonable should be carried out. A few worms left behind would not matter much, as they too have a limited span of existence. An easy and practical plan of treatment according to my idea would be—

1. To group all the patients into mild cases and serious cases according to the signs and symptoms. 2. To give 4 treatments to mild ones and six to serious ones. If 4 treatments are not satisfactory, further treatments may be given to reach the maximum of six. This applies to chenopodium oil. Thymol and Manson's mixture should not have less than six courses. To save working days, first treatment may be given on Sunday and the next on the following Thursday. The patient should be kept under observation on the treatment days, while next day he may be allowed to attend to his duties.

After treatment.—Authorities differ on the point of blood changes in this disease. Some assert that the changes are those of pernicious anaemia, and others those of chlorotic type of anaemia. A medium course of both arsenic and iron combined would be more suitable in my opinion. Of course fresh air and good food are of vital importance.

*Test for cure:—*Our test was as follows:—

1. All positive cases were treated on Thursday and their stools examined on the following Monday, Tuesday and Wednesday. 2. If the case was negative, a second observer observed for the first 3 days of negativity making two examinations of each of the stools. The first stage of cure was established by three double negatives. 3. Seven single examinations made after the three double ones, provided the case continued negative. 4. Four day's interval and then 3 single examinations again. 5. A further 4 days' interval was followed by three single examinations again. 6. Last 14 days' interval again followed by ten single examinations.

The cases, as this plan shows, had to remain continuously negative for 40 days before they were declared as "cured." 7. The specimens were divided up and examined by one of the observers, Dr. Wrench, M.D., S.S. Mebra and myself on one day, and by another on the next day, so that one worked as a check against the other. 8. The number of ova per cover slip were counted in positive cases and recorded to ascertain how the cases were doing under treatment. 9. If a case turned positive, however long after negativity, he lost all prior claims and had to undergo the same rigid test of 40 days again. Some of the cases remaining negative for considerable periods turned many a time positive, and were kept over 4 months under observation. This test although arbitrary in nature was fairly thorough. Besides testing cure by absence or diminution of ova, we tried the following other methods:—

1. By taking percentage of haemoglobin and pulse rate. Theoretically it sounds very feasible that a successful treatment should effect increase of haemoglobin percentage and decrease of pulse rate, but practically it entails great difficulty. But so far as I have observed haemoglobin rises very tardily. It would be rather long before a patient sterile of the parasite could be declared as cured under this test.

2. Washing stools and counting number of adult worms after each treatment. This test is very dirty and we had to

give it up. It is unreliable as well, as it only shows the number of worms expelled, but gives no clue as to how many are left behind. Although there were no facilities for carrying on this test we still tried it on a limited number of cases. This test seems inferior to ours of counting eggs which revealed the presence of even a few worms by detection of their ova.

Conclusions.—1. Ether and acid is the simplest and best method of concentrating ova. 2. Chenopodium is the best known drug but much dangerous too. Its indiscriminate use is to be avoided. It is not suitable for cases in private practice. 3. Next to chenopodium comes thymol. It is less toxic but less effective as well. 4. Manson's mixture, although inferior to chenopodium and thymol, is quite a useful substitute when they are contra-indicated. 5. Country drugs so far known and tried were no good, but it is not impossible to find an effective indigenous drug for it. We have got efficacious drugs for tape-worm and round-worm and it would be no wonder to find one for it also. 6. The disease is a resistant one and requires prolonged treatment and after treatment.

References.—Indian Journal of Medical Research, Stitt's Diagnostics and Treatment of Tropical Diseases.

OUR CONTEMPORARIES

THE PREVENTION AND TREATMENT OF DIABETIC COMA.

By P. J. CAMMIDGE, M. D., LOND.

* * * Clinical experience and many laboratory experiments have suggested that diabetic coma is the culminating point of an increasing acidosis, and one might therefore expect that therapeutic measures to counteract and control the acidosis would prevent the onset of coma and cure it, should it have developed. The obvious treatment would be to make good the alkaline reserves of the body and ensure their being maintained at the normal level by the administration of alkalies

by the mouth or, if need be, by intravenous injection. It is true that a certain degree of success has apparently attended this method of treatment, and there are even a few cases of diabetic coma on record where large doses of sodium bicarbonate saved the patient, at any rate temporarily, but on the whole the results of alkali therapy have been disappointing, and it can hardly be claimed that the death-rate has been materially improved by it. After all, it is only symptomatic treatment which does not touch the source of the trouble, the excessive formation of organic acids. Moreover, the attempt to control an acidosis with alkalis is not always free from danger and discomfort. Large doses of alkali, such as are often necessary, are apt to cause irritation of the gastrointestinal tract and give rise to nausea and vomiting, especially if not administered in very dilute solution, and then the large amount of fluid may overburden the stomach and throw excessive work on the kidneys. When taken over long periods alkalis interfere with digestion, tend to deplete the body of necessary salts, particularly chlorides, and have a depressing effect on the heart if sodium salts are chiefly used. Finally, as Joslin has pointed out, it is possible that the administration of alkalis over long periods may set free acid bodies existing combined, quiescent, and harmless in the tissues, and so do harm, for the constant use of alkalis appears to promote the constant excretion of acid bodies. It is doubtful, therefore, whether the attempt to treat acidosis and prevent coma in diabetes with alkalis is sound practice, more especially as Allen's experiments have shown that in diabetic dogs no apparent prolongation of life results from keeping the alkaline reserve of the body normal with alkalis given intravenously or by the mouth.

A more satisfactory way of attacking the problem would be to prevent the formation of unoxidized acid products by limiting the material from which they are derived, and this is quite a feasible proposition, for the work of Rosenfeld, Hirschfeld, Magnus Levy, and others have shown that fat is the chief

source of the acetone bodies and that it is from the fat of the food they are mainly derived. Recent work has proved that careful control of the fat intake in the diet is one of the most certain practical methods at present at our disposal for preventing acid intoxication and subsequent coma. By this means Joslin, who was a pioneer in that aspect of the treatment of diabetes, has been able to reduce his death-rate through coma from an average of 64 per cent. to 44 per cent.

There seem to be two reasons why systematic control of the fat intake in diabetes has been hitherto neglected: (1) the very prevalent idea that diabetes is merely a defect of carbohydrate metabolism; and (2) the generally held doctrine that loss of weight by diabetics must be prevented at all cost. Experiments with diabetic animals and clinical observation have alike shown that both these ideas are erroneous. Diabetes is not a mere inability to assimilate glucose; from the first it is a defect in the metabolism of carbohydrate, protein, fat, and probably mineral substances as well, so that treatment directed to the control of the glycosuria alone deals with one aspect of the disease and overlooks what may be more serious but for a time, less evident defects in the chemistry of the body. The treatment from the commencement must be based on the hypothesis that we have to deal with a general failure of metabolism, and that while restriction of a single food principle, such as carbohydrate, may suppress the symptoms temporarily the progress of the diabetic process can only be prevented and complications, including coma, avoided by dealing with the condition as a whole.

Fat being the principal source of the unoxidized acid end-products giving rise to acidosis, control of the fat in the diet of a diabetic is obviously a matter for serious consideration from that point of view alone, but it is also important from another aspect. It would seem that the weakened metabolic functions of the diabetic are capable of dealing with only a definitely limited load, and that when this load is exceeded failure of the metabolic processes occurs. Consequently,

although a reduction of the carbohydrate in the diet may stop the glycosuria, it will not prevent the disease progressing if the total intake of food is maintained by adding fat or protein. The metabolic functions will then still be over-taxed, and in spite of an apparent improvement the glycosuria will eventually return with increasing acidosis, etc. For a time the progress of the disease may again be stayed by lowering the carbohydrate intake, but so long as the total load of food is not reduced the downward progress of the disease will continue. In other words, the case will have the characters of a progressive diabetes with a steady fall in carbohydrate tolerance, a type one so frequently meets, especially in young people where an attempt is being made to keep up the weight by over-feeding with fat and protein. If, on the other hand, such patients are allowed to lose weight until the body mass is reduced to a level that can be maintained by a total load of food below what can be efficiently dealt with by their defective metabolic powers the apparently inevitable progress of the disease is checked, return of the glycosuria is prevented, and acidosis is avoided, or at least kept within narrow limits. It is true that patients treated in this way become thin, but it does not follow that they are less efficient muscularly, for, as Williams' experiments have shown, and my own clinical experience confirms his results, muscular efficiency and weight are not synonymous. A thin patient feeding within his metabolic limits can do more, and is less easily tired, than one who is over-taxing his metabolic powers in an attempt to maintain a hypothetical weight for an individual of his size or who is over weight.

Regulation of the fat intake in diabetes undoubtedly places in our hands a most useful weapon for combating acidosis, and it appears probable that the death-rate from coma may be materially reduced thereby, especially when control is exercised from the earlier stages of the disease, but it does not necessarily follow that no other methods are available to reduce still further a mortality which is appallingly high.

It has been for so long the custom to accept acidosis and coma as cause and effect in diabetes that the possibility of the acidosis being an associated, and perhaps an incidental, phenomenon has not received the attention it deserves. The failure of alkali therapy to achieve the results expected of it has been one of the main stumbling blocks in the way of a general acceptance of the acid intoxication theory, and it has therefore been suggested by some that the ketonic acids and their salts induce coma, not in virtue of their acid properties, as that theory assumes, but in consequence of some specific toxic action they possess. But experiment has proved that these substances are not poisonous to normal animals in doses likely to be met with in practice. To meet this difficulty it has been claimed that aceto-acetic acid and its salts are toxic if the animal is first rendered diabetic by extirpation of the pancreas. I am not prepared to deny that a diabetic and a normal animal may react differently to these substances, and that they may be more poisonous to the former than to the latter, but the fact that a condition which is known to alter fundamentally the metabolism of the body, and of itself leads to coma, has to be instituted before reasonable doses produce a toxic effect rather tends to weaken the force of the argument.

There can be no doubt that coma is the consequence of an auto-intoxication, but consideration of the evidence available suggests that it is a toxæmia resulting rather from the general failure of metabolism occurring in diabetes than from a specific toxin originating in a break in the chemistry of the body in one particular direction. It seems most likely that coma may be produced by several toxins of different origin acting together. In some instances, however, the metabolic defect may be more complete or rapid in one direction than another, and occasionally there may be associated defects in excretion, such as we know to occur in interstitial nephritis, which will cause one type of poison to have a preponderating effect. In this way we can account for the variations in the symptoms met with in different cases and for the occasional beneficial effects of the alkaline treatment.

Possible sources of toxins, other than fat, are carbohydrate and protein, while the modifying influence of inorganic salts on metabolism must also be taken into account. It is unlikely that carbohydrates give rise to poisonous materials that tend to produce coma directly, for experience has shown that increase in the carbohydrate content of the diet when coma threatens often brings about a temporary improvement, especially when the patient has been treated previously on the historic lines of a "carbohydrate-free" diet, consisting chiefly of protein and fat. Indirectly an excess of carbohydrate in the diet, no doubt, has an influence in causing this complication, first through its effect in accentuating the metabolic deficiencies which underlie the diabetic condition, and secondly through the dehydration of the tissues consequent on the presence of an excess of sugar in the circulation. Water is needed to maintain the volume of the blood required for the mechanical efficiency of the circulatory apparatus, to carry nourishment to the cells, to remove the waste products of metabolism in solution, and to maintain the osmotic conditions essential for cell life. When it is abstracted from the body, and the loss is not made good owing to conditions of the gastro-intestinal tract which prevent retention and absorption, acidosis, sudden large inflammatory exudates, and other reasons, serious and rapid loss of weight occurs, the respirations and pulse increase in frequency, the systolic blood pressure falls, the tension of the eyeball is markedly diminished, the tongue becomes dry and parched, there is oliguria with constipation, the patient becomes restless and irritable, then apathetic, and, finally, comatose. The similarity of these symptoms to many of those met with during the onset of diabetic coma suggests that some of the latter, at least, may be a consequence of the dehydration of the tissues produced by a high concentration of sugar in the blood. It also helps to explain the frequency with which coma is precipitated by gastro-intestinal disturbances, particularly when there is vomiting or diarrhoea, and by conditions where large inflammatory exudates take place.

(To be continued in the next issue.)

PROCEEDINGS OF THE BRANCH MEETINGS.

BARODA BRANCH, 24th August 1919.—Five members were present, including Mr. M. L. Kapadia who was in the chair.

The subject of "Intravenous injection of saline solution in cholera," was introduced by Mr. Otchhavilal, and was discussed in the meeting.

14th September 1919.

Eight members were present, including Mr. Ambaram Harishankar Joshi who was in the chair.

The proposal from the Secretary, Ahmedabad Branch regarding the election of Dr. Joseph Benjamin to the Bombay Medical Council was considered and approved.

BENARES BRANCH, 25th August 1919.—12 members were present.

1. Welcome address to Lt. Col. J. N. Walker I.M.S., new Civil Surgeon of Benares by Mr. B. B. Mathur, Secretary.

2. Reply of Lt. Col. J. N. Walker to the welcome address.

3. Proposed by Mr. B. B. Mathur and seconded by Mr. Morari Lal that Lt. Col. Walker be elected as chairman.

4. Secretary, Mr. B. B. Mathur read the proceedings of the last meeting and accounts for the last 8 months and they were confirmed and passed.

5. Mr. Bimal Chandra Sen Gupta read an interesting paper on "Pyorrhoea alveolaris" and it was followed by a discussion.

6. With a vote of thanks to the chair the meeting closed.

BOMBAY BRANCH, 11th August 1919.—12 members present, including the Chairman, Mr. K. B. Lele.

i. Mr. Y. M. Pradhan read the notes of a case of Tubercular cervical adenitis of 6 years duration in a girl aged 11, treated with injections of Sodium morrhuate. Mr. A. Muthuswami gave out his experiences of the treatment of 11 cases of which 10 were surgical and one T. B. Lungs. Mr. K. B. Lele gave out his experience of

X rays in Tubercle with technique. Mr. N. S. Narasimhan remarked that Potassium cuprocyanide has also good effects in Tubercle and Leprosy, hence there might be a common principle in the action of the Sodium morrhuate and Margosic acid and salts.

ii. Mr. N. S. Narasimhan showed a case of 'Erythema multiforme.' The case was mistaken at first for Leprosy.

iii. Mr. N. S. Narasimhan showed the X ray print of a case of simple fracture of lower third of left Tibia and Fibula. Date of injury 10-1-19. Patient complained of pain and did not walk about. X ray taken in August showed longitudinal fracture of Tibia with some union Transverse fracture of Fibula was united.

iv. Mr. A. Muthuswami showed the X ray print of a case of simple comminuted fracture of patella six weeks after the operation of opening the site and bringing the aponeurosis together by stitching. The result was good though the flexion of the limb was limited.

v. Mr. D. V. Shah read the notes of a case of bilateral glaucoma in a syphilitic man aged 50, who developed sudden facial paralysis of the right side. Wasserman was + + +.

vi. D. G. Khanapurkar showed a specimen of 'Hobnail Liver'. Patient aged 28 was admitted on 12-5-19 for debility with enlarged spleen. Suddenly on 19-5-19 he developed haematemesis and passed tarry stools. Patient died the next day. Post-mortem examination revealed a hob-nail liver.

14th Sep. 1919.—9 members were present; Mr. Shanker Kanojii in the chair.

Mr. Shanker Kanojii gave an account of the life of late lamented Rao Sahib Anant Santaram Malve the first Editor of the Association Journal. Resolved to offer condolence to Mrs. Anant Santaram Malve.

Mr. N. S. Narasimha Iyer L. C. P. S. demonstrated a case of acromegaly in a male aged 31. Patient sought admission into hospital for general weakness, and frontal headache of a year's duration. Patient had all the typical symptoms of acromegaly and hemicrania and impaired vision of left eye. There was no sugar in the urine. There were trophic changes of the skin and finger nails. Patient gave a history of syphilis five years ago and his Wasserman test was positive. There was no improvement under treatment.

Mr. Jwalaprasad kindly sent in the skiagrams of both hands and feet; some thickening of the bones and much thickening of the soft parts were noticed.

Mr. G. B. Parulekar L. C. P. S. read the notes of a case of Jacksonian epilepsy. Patient was a male aged 25 and gave a history of having had a camel kick over his forehead about 3 years ago. Six months after the accident he had fits for 2 days; he was now seen for fits with paralysis of right upper and lower limbs; patient was getting fits every 10 minutes, each fit lasting for a minute. During the interval he was quite conscious; complained occasionally of headache. No aura was noticed. Fit used to start with turning of the head to the right side and eyes turned to the left; mouth wide-open, dribbling saliva but no froth from the mouth; thus there was no fear of the tongue being caught between the teeth. After he had turned his face towards the right, there was twitching of face muscles of right side, then the right hand was raised and straightened and then the leg; next the left hand and by exhibiting to and fro movements; Bladder and rectum not involved; he was taking his food between the fits; patient was not benefited by any sedative treatment, therefore operative treatment was decided. Patient had no history of any venereal disease and no signs were noticed; but Wasserman test was markedly positive + + + Arsonobillon 0.6 grammes was given intravenously; fits diminished in number within 6 hours and gradually stopped altogether; paralysis also disappeared gradually; a second dose of arsonobillon was given three weeks after the first dose; fits stopped altogether and patient could walk about.

There was an interesting discussion as to the nature of the cerebral lesion. The rapid improvement 6 hours after the injection is noteworthy.

Mr. V. S. Srinivasan read a paper on "Post-mortem appearances in influenza."

Mr. Kannan Nair cited a case of homiplogia after influenza in a water carrier aged 18 who recovered after 6 months completely.

Mr. V. S. Srinivasan recorded a case which developed ataxic gait after influenza.

Mr. D. M. Dave said that many cases of influenza with cerebral symptoms were seen by him. He cited the post-mortem notes of a case in which the person during life had a fit and was suspected of having had fracture of skull. But pus was seen in the sphenoidal cells with consolidation of the lungs.

Mr. G. B. Parulekar L. C. P. S., compared the effects of treatment by stimulants and sedatives in boisterous and noisy patients with influenzal pneumonia. He advocated in such cases sedatives such as Hyosine.

BURMA BRANCH, 14th May 1919.—25 Doctors were present, Major R. D. Saigol, I.M.S., presiding. Mr. T. M. Nair, M. R. A. S. Assistant M. O. Bavana mines, Nanttu read an interesting paper on "Some orthodox methods in the diagnosis and treatment of diseases."

BURMA BRANCH, 15th August 1919.—11 members were present, including the chairman, Mr. U. Kyaw Lun.

1. Confirmed the minutes of the last meetings.
2. Read and recorded the letter from the Inspector-General of Prisons, Burma, re-Quarters for Sub-Assistant Surgeons attached to Jails in Burma. Resolved to address the Inspector-General of Civil Hospitals, Burma, for improvement of the type of quarters available for Sub-Assistant Surgeons in Civil Hospitals and Dispensaries.
3. Resolved to appoint a Committee for improving the conditions of the Sub-Assistant Surgeons' Club.
4. Resolved to hold monthly clinical meetings on the second Fridays of every month, at 6-30 P.M.
5. Read and recorded a letter from a Civil Sub-Assistant Surgeon employed on temporary military duty, detailing that while all officers and men doing military duties after the signing of the Armistice were granted certain detention allowance the Sub-Assistant Surgeons were the only class to whom it was not allowed. Resolved to obtain further information on the matter before moving the authorities.
6. Resolved to congratulate the two Sub-Assistant Surgeons, Mr. Gobind Ram and Mr. Doulat Ram, the recipients of Birth Day Honours.
7. Resolved to request the authorities concerned for (a) very early sanction and introduction of an enhanced scale of pay for Sub-Assst. Surgeons in Burma.
- (b) That while thanking the Government sincerely for the grant of Indian and British Commissions to the members of the Sub-Assistant Surgeon Class, this Branch earnestly prays that slight restriction made in excluding those who have less than 5 years service from Commission be removed and that the Sub-Assistant Surgeons be given the Indian Commission from the very start of their service in the department.
- (c) That copies of the above resolutions (a) and (b) be forwarded to the I.G.C.H., Burma.

8. It was recorded with regret that the T. A. Bill of Mr. Randhir Singh for attending the Agra Conference as a delegate from Burma, was still unpaid. The Secretary was asked to inform the General Secretary of the fact.

9. Passed the T. A. Bill of Mr. U. Kyaw Lun for Rs. 130-0-0 only for attending the Calcutta Conference.

10. Recorded a copy of the resolutions of the Ramchandrier Fund Committee.

11. Resolved that paid compounders be provided for all the Jail Hospitals in Burma, as in India.

12. Resolved that the above resolution (11) be forwarded to the I. G. C. H. Burma, and I. G. of Prisons, Burma.

With a vote of thanks to the chair the meeting came to close.

DACCA BRANCH, 4th Annual Sitting, 6th September 1919.—34 members were present, Rai Sahib Guru Nath Sen proposed Major C. A. Gourlay D.S.O., M.D., I.M.S., to the chair.

Mr. D. Chanda, Secretary of the branch association read a history of the Association. Two nice papers were read one on "Ankylostomiasis" by Dr. Digesh Runjan Ghose, Deputy Supdt., Lunatic Asylum, Dacca, the other on "The use of stomach tube without a funnel" by Dr. Priya Nath Mahalanabish with an actual demonstration of his process upon a patient.

(1) Resolved that the scale of pay of the District Board and of the Local Board Sub-Assst. Surgeons should be the same as that of the Government Sub-Assst. Surgeons: and that the Hon'ble the Surgeon General be moved through the Provincial Secretary to address the Government on the subject.

(2) That some seats should be reserved in the Medical College for Sub-Assst. Surgeons willing to undergo further courses of studies.

The chairman made an interesting speech on the necessity of working the association regularly for the advancement of the class. He discussed the methodical treatment of Ankylostomiasis with the members present and said that "Thymol treatment" was superior to all others.

The meeting then dissolved with a vote of thanks to the chair.

GUZERAT BRANCH, 31st August 1919.—Five members were present including the chairman Mr. Joseph Benjamin. Resolved to move the President of the Ahmedabad Municipality to raise the pay of Municipal Sub-Asst. Surgeon to the level of that now sanctioned by the Bombay Government for Civil Sub-Assistant Surgeons. Resolved also that Mr. Joseph Benjamin be nominated as a candidate for the seat in the Bombay Medical Council which has fallen vacant by the resignation of Col. Evans.

KARACHI BRANCH, 27th July 1919.—About 35 Sub-Assistant Surgeons were present. Mr. Rochiram was in the chair.

The minutes of the previous meeting were read and confirmed. An organising committee consisting of the following members was appointed to put the scheme of the office, reading room and library into force.

1. Mr. A. Rochiram, 2. Mr. B. Madhavji, 3. Mr. D. H. Jhala, 4. Mr. Balvantsing, 5. Mr. Abdul Said, 6. Mr. Mirra, 7. Mr. Jivanmal. Mr. N. R. Doshi was appointed treasurer of the Office Scheme Fund.

Resolved to address a communique to the Bombay Medical Council for taking measures with a view to prevent Medical Graduates of Bombay and other Universities, Indian or foreign from going in consultation and associating with compounders and other non-qualified medical practitioners in the city.

It was agreed upon that the balance of Rs. 27-8-0 of the fund collected to defray extra expenses of the conference delegate be added to the new office fund.

The proposal to thank the Government for the recent changes in the ranks of the Sub-Assistant Surgeons serving in the Military Department was lost.

Resolved to address a letter to the Bombay Medical Council bringing to their notice the attempts of the Sind Medical Union—consisting of medical graduates in the public press to deprecate our class. It was decided that the behaviour of the Sind Medical Union involved a breach of medical etiquette.

Then a highly instructive and interesting paper on "Rat Bite Fever" was read by Dr. Jivanmal.

LUCKNOW BRANCH, 10th August 1919.—Mr. Ziaul Husan was in the chair. There was a discussion on "Treatment of Cholera" and then the minutes of the meeting held on the 4th June were read and confirmed.

LUCKNOW BRANCH, 14th September 1919.—7 members were present, including the chairman Mr. Imdad Bakhsh. Read and passed certain accounts of the local branch. Resolved to hold the 4th U. P. Provincial Conference at Lucknow. Mr. Md. Abdul Karim was appointed President of the Reception Committee and Mr. P. L. Sood Secretary and Treasurer. Approved the Provincial Secretary's draft of the memorial to the Inspector-General of Prisons.

MORADABAD BRANCH, 18th February 1919.—9 members were present. Mr. Daya Nidhan gave a short account of the Conferences at Benares and Calcutta. Then followed the election of office-bearers for the year with the following result:—President—Mr. Yusuf Ali Khan. Vice-President—Mr. J. N. Ganguli. Secretary—Mr. Mahabir Prasad. The election of the Joint Secretary and managing Committee was postponed to the next meeting. Messrs. Kunj Behari Lal, L. R. Singh and Daya Nidhan were selected for the State Board. The Travelling allowance bill of Mr. Daya Nidhan was passed.

SECUNDERABAD BRANCH, 15th August 1919.—10 members present and Major S. B. Mehta presiding. Mr. K. Ramachandran read an interesting paper on "Flies and Fly-borne diseases." An interesting discussion took place in which many of the members present took part. The chairman in winding up the proceedings of the meeting, mentioned the several varieties of flies and which of them carry which disease and suggested that if the night soil is put evenly and the mud over it well thumped and made hard and if Kerosine oil is poured over it flies will not breed. With a vote of thanks to the chair, the meeting terminated.

LETTERS TO THE EDITOR.

The Editor of the "*Indian Medical Journal*,"
Madras.

Sir,

There can be no denying the fact that in consequence of the appearance in the last December issue of the journal, of a letter embodying Meerut Branch proposals from our distinguished brethren Messrs. Kunj Bihari Lall Varma and S. L. Sharma considerable attention has been arrested over the two questions, *viz.*, (1) to raise the subscription for the journal and (2) to create a "paid" post of Organising Secretary. Not only this, a number of our friends are also anxious to have a 'paid' Editor for the Journal. Though such proposals have found no place in the proceedings of the 13th Annual Conference, held in Calcutta, yet, the subjects are so important in view of their unfortunate knack of attracting the attention of cranks that a counter-match is possible by those who gathered the proposals. Speculation is ripe, however, that such questions will again crop up when the next conference meets at Poona. A few hard facts will therefore be more useful than any general arguments and I beg to lay them before the members of the Association hoping they will receive earnest and serious consideration.

The Journal is our medium and it has so far been the pioneer to our cause. There cannot be any dispute regarding the policy of strengthening it for future service, therefore, any suggestions for its improvement are welcome. The present "form and get up" of the journal have not so far fallen short of our aims and objects. In these days of marvellous scientific researches, of unceasing hankering after knowledge and progress and of keen competition no association, especially of medical men, can ever hope to attain greatness without an up to date journal of its own to circulate for the edification of the members the latest discoveries and researches touching such

vital subjects as the causation of diseases and methods of diagnosis and treatment. It is by means of such an organ only that we can maintain an *esprit de corps*, a healthy activity, friendly intercourse and professional efficiency so necessary for the success and progress of our class. But our friends are only anxious to raise the subscription in order to improve the 'form and get up' and to meet the cost of employing a paid Editor.

We should not be content with the exquisite and beautiful printing and "size" without enough of really valuable matter visible in the pages of our Journal. It is nothing but a pathetic truth that during the last 12 years the Sub-Assistant Surgeons have given a poor account of themselves, save a few, in spite of the impetus given by our late Editor of the Journal and our late revered General-Secretary Dr. Ramachandrier, for contributing original articles. We relied all these years and are still relying, mainly upon our gifted and talented Editors to carry out the work of writing and no wonder therefore that progress in general has not been as satisfactory as could be desired and the main body of our class are left to grovel in Cimmerian darkness. It is very strange that our friends without first securing the men of our class who are adepts in the art of writing, which they can do with but little effort, have advanced views to increase the 'form and get-up' of the Journal. It is I think quite easy to organise a society of regular writers in each province under the care and supervision of the Provincial Secretaries, as this will enlarge the range of active writings, which, I am sure, will keep abreast of current thought and literature. Such an organised band of energetic writers will be of great help to the Editor in the efficient discharge of his duties and also the correct solution of the problem of a well conducted, up-to-date and attractive journal. Before any attempt is made to put the scheme into practice, the Provincial Secretaries should catch men of our class who can think and write independently and ably and yet be ready to concede the other writer's point of view and to work without any expectation of name or fame. This will facilitate our endeavours to fill the

pages of our Journal with really instructive and readable matter and make the Journal worthy of the confidence not only of all Sub-Assistant Surgeons but also of all medical men in the country. Gradually, with the increase of good writings "the form and get-up" can be improved. Then and not till then will be the time for increasing the rate of subscription. Our Editors must also condescend to give a wide scope for other writers, besides their picked ones, and in this respect, Mr. Editor, I hope you will also give encouragement like your predecessors, Messrs. Karandikar and Malve.

For the last few years a section of our class has been pressing the Association for "paid" Editorship of the Journal and the cumulative effect of the spirit has dawned upon us on the death of our late G. S. Dr. P. S. Ramchandrier. Nor is this all. During the past one year a vigorous agitation has been maintained for the creation of a "paid" post of organising Secretary, who will be in charge of the Delhi Office, when erected. It has been decided at the last conference that in commemoration of the services rendered by the late Dr. Aiyer a suitable memorial should be erected at Delhi, and though nothing decisive is yet known as to its utility it seems certain that the Meerut Branch proposals are in view. It passes our understanding why the subject has been left shrouded in impenetrable mystery. Are we to take that the creation of a "paid" O. S. is in contemplation or that the head office when erected will be run by a paid Editor. I hope our G. S. Rai Bahadur Dr. Surjoo Prasad, who is well known as one of the most level-headed workers of our Association, will remove "the current misconceptions by pronouncing the transparent sincerity of the purpose."

The spirit of making even "small bills" on the part of the office-bearers of our Association is to be deprecated. The spirit is contagious and once the paying system is countenanced the infection of money-making will spread to others. If such hideous desire takes the place of voluntary work, healthy service and co-operation born of moral responsibility

will soon disappear and we will slip into the easy habit of ingratitude and shallowness towards our brethren. There is a moral treason in this habit of continually advocating the value of "paid" Editor or "paid" Organising Secretary. It can hardly be disguised that the greatest sacrifices are made and heaviest responsibility shouldered by those who receive no remuneration for this work. Need I recall here the voluntary work of Anant Santram Malve, Karandikar and Venkappa as Editors and Ramchandrier, Vyas Brahaspathy, Ram Narayan Lall, Sharma, Ganguly and many others as organising workers? It is misleading to suggest that our voluntary workers have "proved incapable of coping with the enormously growing work"! Our Association is not in lack of such 'voluntary and zealous workers interested in the diffusion of knowledge' and willing to accept the honorary offices of Editor, General Secretary or O. Secretary. The voluntary work has a moral instruction both in method and principle and stimulates and develops healthy competition in which all capable men will give out the very best that is in them.

It is the real propelling force of organisation since the feeling and emotion play a large part in successful work. Paid post in an Association of our standing is a heavy drain and will dry up the spring of enterprise. Not only will the paid post interfere with the Editor and Secretaries giving out the best that is in them but it will also interfere with the organising works because paid office bearers can by no means be relied on to grapple very earnestly with the enormous difficulties of work. It is not inconsistent to refer to the conservative character and feelings among Sub-Assistant Surgeons who are still individualistic in their tendencies and unless we improve through co-operation our feelings and attitudes towards one another in imitating and maintaining co-ordination in work, it would be unwise to transplant our Association in a new environment. It is true that progress depends upon change but not all changes are progressive. Progress can only be attained by means of more harmonious co-ordination among the members of our Association, nay, among all

Sub-Assistant Surgeons, to attain greater efficiency in, and greater capacity for, scientific advancement.

How far the promulgation of such schemes will go towards improving the working machinery of the Association it will be rash to prophesy, but as the activities spring not from rational views but presumably from the obsession of insoluble controversy on debatable subjects and as the scheme typifies in its total lack of moral influences, I am inclined to think that it is a retrograde step, a stride in the opposite direction. It is our duty to drive the energies of the present machinery entirely towards solid work not by "sheer force or despicable method" but by unremitting industry and by untiring zeal. We must preserve the moderation and harmony which are the marks of true wisdom as opposed to onesidedness which spells weakness. If an urgent reform is needed, let it not be such a radical change as to bring the original principle into disrepute, for we must not at this stage rail against the original path which has led us to the gates of progress and prosperity. It would be a stupendous folly if we go to extreme length in our excessive zeal. At present we have secured two Office-bearers of towering ability. Our venerable Rai Bahadur Dr. Sarjoo Prasad has taken up the "arduous and exacting duties" of General Secretary to direct the energies of the Association because he felt keenly in the affairs—felt not an academic but a real and vital interest in the cause of our Association, with which his name will be honourably enshrined like his predecessor's, while the Journal has been entrusted to Mr. Venkappa a man of sterling worth, who is bound to prove himself an acquisition. Surely we will not get such workers even for 'fat' pay. Our Association is too young and poor to endure any such excesses as proposed by my Meerut friends. Moreover, if we accept we would make cowardly obeisance to a system injurious to our 'morale' and thereby we deny the innate potentialities of self-sacrificing work. Any proposal for creating a "paid" post therefore deserves to be blown sky-high. Our members must not only present a solid front to such proposal but also repudiate the idea of improving our Association by any such over-ambitious

schemes. It is our duty at present to cement the foundation strongly by voluntary work and not to create paid appointments as long as the work is carried out satisfactorily by voluntary system.

S. C. SEN,
Civil Sub-Assistant Surgeon, Burma.

A NEW TYPE OF PLAGUE.

To
The Editor of
The Indian Medical Journal.

Sir,

There was an outbreak of plague here last year. In the course of 2½ to 3 months there were 10 cases, all indigenous and of bubonic type. Rat plague preceded the human plague. The examination of the blood smears taken from the rat spleen and human glands proved the presence of bacilli pestes. About the end of the period I went to inspect a dead body. The history given to me was that the patient had suffered from fever for 5 days and died on the sixth day; the fever, though continuous, was never high; on the third day the patient complained of pain in the left cheek and later on a swelling appeared in the cheek. I examined the swelling by palpation and pressure but could detect no hard glandular feeling. The swelling on the left side of the cheek in front of the ear was extending from the lower margin of the lower jaw up to a line one inch above the upper border of the left ear 4 inches long 2½ inches broad. I cut the tumour, but found no pus or gland substance. Considering the prevalence of plague and the short duration of the attack, I thought it advisable to send the smears of the tumour for examination for bacilli pestes. All the same I was thinking that it could not be a case of plague, for, although I was twice on plague duty for some months together, each time I did not come across such a case; nor does any author mention such cases, even though many varieties of plague such as bubonic, pneumonic, larval etc. are described.

The microscopical examination of the smears by the Pasteur Institute, Rangoon revealed the presence of bacilli pestes. This case proves that plague bacilli may even attack ordinary cellular tissue. Another point we have to remember is that such cases will be lost sight of if they occur at the beginning of an epidemic.

Loikam,)
7-7-19.)

A. NANJUNDA IYER,
Sub-Asst. Surgeon.

To The Editor,
Indian Medical Journal, Madras.

Sir,

With reference to an article appearing in the August issue of the Indian Medical Journal under the heading "Margosic Acid" by Dr. S. U. Trivedi, I like to invite the attention of your readers that there is another soluble salt of margosic acid, viz., potassium margosate, which Dr. Trivedi omitted to mention. Potassium margosate was latterly preferred by the original advocates as it seemed to present the following advantages over the sodium salt. (1) It has less haemolytic tendency. (2) It is more soluble. (3) After an intravenous injection the same dose is less liable to cause thickening of the veins than the sodium salt. (4) It is distinctly less painful after intra-muscular injection. (5) It seems to be less toxic, as proved by experimental injections into guinea pigs.

2. I am using the preparations of margosic acid in syphilitic and skin diseases since October 1918, and the results achieved are satisfactory, though not sufficient to warrant an independent report, and suggest that these preparations deserve trial, both as regards their efficacy and cheapness. Those who want to know more about these preparations will do well to refer to (1) "Observations on margosic acid and its salts and their use of cases of syphilis and skin diseases" Dr. K. K. Chatterji and Dr. C. Roy, Page 656. Indian Journal of Medical Research, Vol. V No. 4 (April 1918.)

(2) Subsequent observations on the same by Dr. Chatterji in the Indian Medical Gazette, Page 377 of Vol. LIII. No. 10 (October 1918) and on Page 171 Vol. LIV No. 5 (May 1919).

S. SREEMANNARAYANA MURTHY, L. M. P.,
Sub-Assistant Surgeon, Rayachoti.

DR. RAMCHANDRIER'S MEMORIAL.

Having read various suggestions regarding the form the memorial should take, I give below my individual views regarding the same for due consideration by members:—

I. The memorial should be such as would be within the means of Sub-assistant Surgeons to complete and maintain. Their income through salary and practice is meagre; their position in life is middling; they can be styled neither poor nor rich.

II. It should be such as would bring into prominence the great qualities of head and heart of the departed General Secretary.

III. It should be such as to benefit the class the most and serve as a stimulus to us and to the generations to follow us. It should not be a deadweight on any account.

IV. I am afraid a building at one place say Delhi or Bombay, Madras or Calcutta will not be easily accessible to all considering our limited means. Again if a building is erected we have to provide for the annual recurring expenses for maintaining the building.

V. Statue, or bust will also need accommodation. It will also be a deadweight and serve no useful purpose being located at one place.

VI. In my humble opinion it should be a prize given for competitive essays on medical subjects selected by a committee and scrutinized by experts, to be awarded monthly or quarterly according as funds permit and the funds to remain apart earmarked as Dr. Ramchandrier's memorial fund to be managed by

the Association. The money thus collected should be deposited in Government security and only the interest to be spent. If this humble suggestion of mine is accepted, it will strengthen the association, supply enough interesting material for the journal, create a taste for knowledge, show to the world at large what the sub Assistant Surgeons are capable of and help the cause which the deceased Dr. Ramchandrier had at heart. There cannot be any better means of perpetuating the memory of the deceased. Again if funds permit loans may be advanced to members of our class going to foreign countries to prosecute their studies, the amount being made recoverable in easy instalments. To make this doubly sure the life of the person so sent be insured in favour of the Association, and only the amount expended on account of him be realized in case of mishap and the remaining amount given over to the helpless dependants of the Sub Assistant Surgeon so sent.

AHMEDABAD: } D. DAHYABHAI CHHATRAPATI,
30-10-19. } Senior 2nd Class Sub-Assistant Surgeon,
Police Hospital, Ahmedabad.

ANNUAL CONFERENCE OF THE ALL INDIA S. A. S. ASSOCIATIONS.

Second List of Donations for the Fourteenth Annual Conference of the All India S. A. S. Association.

	Rs.	AS.	P.
R. S. Gangaram Hari	...	30	0 0
Dr. Kumbhajkar	...	10	0 0
„ R. V. Bapat	...	25	0 0
„ Gopalrao Gune	...	5	0 0
„ C. K. Oka	...	5	0 0
„ H. B. Patil	...	5	0 0
„ G. M. Ketkar	...	10	0 0
„ V. B. Shrikhande	...	5	0 0

	Rs.	AS.	P.
„ G. K. Sarnaik	...	5	0 0
„ Gopalrao Sanakpal	...	5	0 0
„ G. R. Murkibhawikar	...	15	0 0
R. S. Dr. Shripat Nickum	...	20	0 0
Dr. Chatuphale	...	5	0 0
„ M. H. Mody	...	15	0 0

Third List of donations for the Fourteenth Annual Conference of the All India S. A. S. Association.

	Rs.	AS.	P.
Dr. D. V. Shah	...	5	0 0
„ C. P. Vyas	...	5	0 0
„ V. V. Kannan Nair	...	3	0 0
„ N. P. Vyas	...	5	0 0
„ Y. M. Pradhan	...	5	0 0
„ Jawalaprased	...	2	0 0
„ G. B. Pamkar	...	10	0 0
„ S. Venkateshwara Iyer	...	5	0 0
„ D. M. Dave	...	5	0 0
„ P. R. Bandelu	...	3	0 0
„ R. H. Hiranandani	...	4	0 0
„ B. W. Marathe	...	3	0 0
„ C. J. Dhandukib	...	3	0 0
„ N. G. Winze.	...	5	0 0
„ M. M. Pareikh	...	3	0 0
„ H. M. Adaljih	...	5	0 0
„ A. Muthuswamy	...	3	0 0
„ P. K. N. Nambiar	...	3	0 0
„ Y. S. Kale	...	3	0 0
„ Shankar Kanoji	...	5	0 0

	Rs.	AS.	P.
„ D. S. Trivedi	...	2	0 0
„ Narasimha Iyer, N. S.	...	3	0 0
„ A. K. Nayabu palli	...	10	0 0
„ K. G. Lohokare	...	100	0 0
„ V. A. Warty	...	15	0 0
„ V. D. Marathe	...	5	0 0
„ A. B. Sardeshpande	...	50	0 0

List of donations promised for the Delhi Building Fund at a Meeting of the Barilly Branch (U.P.) held on the 21st August 1919, with Dr. Mukandlal in the Chair.

	Rs.	A.	P.
1. Dr. Mukandlal, Police Hospital Barilly	...	500	0 0
2. „ Ardul Singh, Newabganj Dispensary, Barilly	...	100	0 0
3. „ Kishen Sahai, District Hospital „	...	100	0 0
4. „ Shyam Behari Guptha, Medical Practitioner „	...	100	0 0
5. „ Ramlal „	...	25	0 0
6. „ Murlidhar Sahai, District Jail „	...	25	0 0
7. „ Akanand, Faridpur Dispensary „	...	100	0 0
8. „ Mohad Sayed, Purashah's Dispensary „	...	30	0 0
9. „ Prubulall Das Guptha „	...	15	0 0
10. „ Ramsarup Gurd, Reserve Duty „	...	15	0 0
11. „ Ganga Saram, Lunatic Asylum „	...	25	0 0
12. „ Lalta Preshad, District Jail, Shahganj Dispensary	...	100	0 0
13. „ Hikmatullaha Khan Jutalabad Dispensary	...	100	0 0
14. „ Mukat Behari Lal, Khatra Dispensary	...	100	0 0

	Rs.	AS.	P.
15. „ Khushal Singh, Panoyan Dispensary...	100	0	0
16. „ Dewan Singh Khatra, Dispensary Shahganj	...	25	0 0
17. „ Chokheyilal Telhor, Dispensary Shahganj	...	25	0 0
18. „ Gopal Singh, Bhatnagar...	...	100	0 0
19. „ Behari Mathur, Bedauin...	...	100	0 0
20. „ Abdul Aziz	...	30	0 0
21. „ Brighel Sharma	...	100	0 0
22. „ Ahmed Raza Khan	...	100	0 0
23. „ Hari Singh. Modhopur Dispensary	...	100	0 0
24. „ Raghuber Saran, Bilsaund	...	25	0 0
25. „ Satchutanand Sharma	...	100	0 0
26. „ Shyam Sunder Shukla	...	100	0 0

(Sd.) KHAZANCHAND, RAI SAHIB,
Honorary Secretary and Treasurer.

Annual Account of the All India Sub-Assistant Surgeons Association for the Calendar year 1917.

Opening Balance.		Rs. A. P.	
Cash on hand	...	239	0 3
Cash in the Postal Savings Bank Ahmedabad	...	7632	7 7
Cash in Bank of Madras	...	3152	7 8
Government Promissory Notes	...	500	0 0
Cash with Branch Secretaries	...	900	7 6
Membership fees	...	5555	0 0
Entrance fees	...	396	0 0
Advertisement fees	...	356	0 0
Interest	...	126	1 4
Miscellaneous	...	4	0 0
		6,437	1 4
Postages	...	1,034	15 6
Stationery	...	239	10 6
Telegrams	...	17	11 0
Miscellaneous	...	243	9 9
Rent	...	252	0 0
Other printing charges	...	178	11 0
Printing charges	...	2,830	1 0
Travelling Allowance	...	1,765	9 6
Books	...	3	8 0
Salary	...	478	0 0
Difference in totalling under head "Postage" Page 196 of Ledger (unrecoverable).	...	10	0 0
Balance	...	7,103	12 3
Cash in hand	...	7	3 0
5 Years Postal cash Certificates	...	5,812	8 0
Cash in Postal savings Bank, Ahmedabad.	...	1,218	15 7
Cash in Madras Ban.	...	3,278	9 0
Government Promissory Notes	...	500	0 0
Cash With Branch Secretaries	...	341	8 6
		11,153	12 1
Grand Total Rs	...	18,261	8 4

S. D. GOSAYI,
Joint General Secretary.
The All India S. A. S. Association.

SURJU PRASAD, RAI BAHADUR,
The All India S. A. S.

The Indian Medical Journal.

Vol. XIII.]

NOVEMBER 1919.

[No. 11.]

RE-ORGANISATION OF MEDICAL SERVICES IN INDIA.

IT is now nearly .9 months since the Committee appointed for the Reorganisation of Medical Services in India completed its mission and we are yet to know what exactly are its proposals and findings and at what stage the matter stands. Although the Committee's enquiries were all in camera and that gave rise to serious misgivings and unpleasant rumours and forecasts yet the frank and fearless manner in which our representatives made out our case and the patience and sympathy with which they were heard kept up our hopes of the early dawn of better days for us. But we have yet no reason to despond, for it may be that the architects of our future are absorbed in the solution of the momentous problems of reconstruction and political reform. But "justice delayed is justice denied." Already rumours are afloat that the Committee was concerned more with the finding of ways and means for improving the pay, position and prospects of the R. A. M. C. and the I. M. S. than with anything else. Our elder brethren, the Civil Assistant Surgeons have even got up protest meetings and submitted their resolutions to the Secretary of State for India. The wave of pessimism is fast overtaking our class also, but the justice of our cause must stand us in good stead to brave the wave. We are however often puzzled by the

thick veil of secrecy that hangs over the report of the Committee. Even taking the rumours for what they are worth, we feel that in common fairness the report should have been published in this country long ago so as to afford to those concerned an opportunity of expressing their views. Who knows where the shoe pinches, except the wearer? We therefore strongly urge upon the authorities the desirability of immediately publishing the report. The enquiry in camera has already caused enough doubt in the minds of many and the withholding of publication of the report strengthens the doubt.

The various points urged before the Committee may be summed up as below:—The unification of the standards of general education necessary for admission to the medical schools and of the courses of training in those schools (2) the improvement of the pay, prospects, pension, allowances and status of our men.

Such a vast body of medical men as ours, numbering some thousands, upon whom the majority of the people depend for medical aid, must necessarily be equipped with up-to-date knowledge of the theory and practice of the science of medicine and surgery. That the present course of four years in the medical schools should be raised to five years is admitted on all hands. We have repeatedly urged for this wholesome change, but so far none of the local governments except that of the United Provinces appear to have moved in the matter. We cannot be unambitious, but must progress and win the recognition of the British Medical Council.

The next question is that of pay. The scale of pay has been revised in all the provinces except Burma, but none of these scales is up to expectations and capable of bringing about general satisfaction. Having regard,

however, to the general educational qualification, the prolonged course of professional training, the responsible and risky nature of the duties expected of our class we consider that their pay should be fixed at Rs. 100 per mensem rising to Rs. 250 by annual increments of Rs. 10. One of the greatest disabilities of a Sub-Assistant Surgeon is that he has very little or no scope for rising to the higher ranks of the service, whatever his capacity. This is a disability which exists in no other department of Government service. There is of course an order of the Government of India to the effect that select Sub-assistant surgeons may be promoted to the rank of Assistant Surgeons, should opportunities arise. But the cases in which this gracious provision has been given effect to till now are so few and far between as to amount to a virtual stultification of it. At least one-third of the vacancies in the cadre of Assistant Surgeons should be filled up by selection from among Sub-Assistant Surgeons who have put in 15 years' approved service or more. Short and temporary vacancies should invariably be filled up by appointing the best S. A. S. in the district.

As the nature of the duties of the Sub-Assistant Surgeon practically denies to him the benefit of Sundays and other public holidays it is but reasonable that he should be compensated for it. The best and most satisfactory way of compensating will be to allow in his case privilege leave at the rate of 6 weeks for every 10½ months of active service. Retirement on full pension after 25 years service even though he might not have completed his 55th year should be optional, but if after 20 years service, it should be on medical certificate. The case of military Sub-Asst. Surgeons will be dealt with in the next issue.

EDITORIAL NOTES.

We have before us copies of two printed memorials, one submitted by the Civil Sub-Assistant Surgeons serving in the Indian Station Hospital, Rawalpindi to the Officer Commanding and the other by the Local Fund Sub-Assistant Surgeons of Ganjam to the Government of Madras. Space forbids the publication of these memorials and we therefore furnish below the substance of them.

Memorial of the Civil S. A. Ss. on military duty in the Indian Station Hospital, Rawalpindi.—That the Civil S. A. Ss. on military duty in India are put to heavy expenditure, far exceeding their income, in consequence of their frequent transfer from one corner of the country to the other and the necessity of maintaining two establishments, one for themselves and the other for their families. That in consequence of the introduction of the Indian Station Hospital system they have been deprived of their medical and sub-medical charge allowances without any corresponding enhancement of their pay. That while temporary commissioned I.M.S., officers, Assistant Surgeons of the Indian Medical department, Indian officers and sepoys are all allowed extra remuneration in some form or other to mitigate the hardships of military life no such consideration is shown to the Civil S. A. Ss. on military duty in India. That though the local governments are for the reversion to the Civil department of the Civil S. A. Ss. who have served in the military department for 18 months the Government of India have vetoed the proposal. That in these circumstances the memorialists pray (1) that some extra allowances may be granted to them as a compensation for the extra expenditure and loss of private practice (2) that every year's service in the military in excess of the first two years may be counted as two years' service in the civil department for purposes of promotion etc., (3) that they may be exempted from the grade examinations which may fall due while they are on military duty.

It is very unfortunate that the memorialists and their class should be viewed with so little sympathy and subjected

to such hardships while officers of higher ranks, already fairly well paid, are allowed extra remuneration in some form or other. Are they to be consoled by the biblical saying "To him that hath more shall be given and from him that hath none even the little shall be taken away"? We do not grudge the liberal emoluments allowed to the higher ranks but only urge the moral claims of the memorialists for a more liberal and sympathetic treatment.

Memorial of the Local Fund, Sub-assistant surgeons of Ganjam.—Here the memorialists complain that they are denied the benefit of the revised scale of pay sanctioned for civil sub-assistant surgeons in G. O. No. 84 L and M dated 1—3—'18 while in the adjoining districts of Vizagapatam, and Godavari and in Tanjore no such distinction is made between the two classes in the matter of their pay. From a leading article published in the August number of our esteemed contemporary, 'The Antiseptic' we find that the L.F. Sub-assistant surgeons of South Canara are also nursing a similar grievance. As observed by our contemporary both local Fund and Civil sub-assistant surgeons are recruited from the same class of medical men and the duties performed by both are the same. On the other hand the case of the L. F. Sub-assistant surgeons calls for a preferential treatment in the matter of pay, because they have not got the pension privileges to lean upon in their old age. The case of the memorialists would appear to be an exceedingly hard one, their lot being cast in a malarial district. We anxiously await the outcome of the memorial.

Important Notice.

The all India Sub-Assistant Surgeons Association
Fourteenth Annual Conference Poona.

We are glad to announce that the Fourteenth Annual Conference of the all India Sub-Assistant Surgeons' Association is to be held in Poona at the B. J. Medical School, on 18th, 19th and 20th December 1919. Col. J. B. Smith, C.B., I.M.S. acting Surgeon-General with the Government of Bombay, has very kindly consented to preside.

It is hoped that every branch will be well represented and we cordially invite our members, friends, well-wishers and patrons to attend. We feel confident our provincial members will muster strong to accord sincerest reception to our brethren coming from other provinces.

The Branch secretaries are requested to arrange for meeting at once, and to elect representatives without delay, and let the undersigned know the names of these representatives before the 10th of December 1919. They should also send in the proposal they are going to place before the subjects committee before that date.

As in previous years the conference committee have in their programme the idea of holding (1) Sanitary and Scientific exhibition (2) Exhibition of indigenous drugs, surgical appliances, and Hospital equipments and (3) Reading of important and Scientific papers concerning medical topics, e. g. Medicine, Surgery, Midwifery, Gynaecology and diseases of children, Hygiene and Public Health, Bacteriological observations etc. The papers will be received by Dr. B. M. Sohoni, F. C. P. S. Sassoon Hospital, Poona, before the 10th of December 1919. With a view to carry out these projects we earnestly request our brethren all over India, Burma, and elsewhere to oblige us with as many original papers as possible and as many exhibits as available, as without them the organization will be denuded of its importance. The articles for exhibition will be received by Dr. Naidu, Sassoon Hospital, Poona. Every effort should be made by all concerned that the exhibits reach the above gentlemen before the 5th December 1919.

All articles should be properly packed in bottles and labeled. All charges including the railway freight for both ways should be borne by the exhibitors. The exhibitors or their agents are welcome to look after their articles and to see to their safety at their own cost. In the absence of the exhibitors the committee will take delivery of the exhibits and return them at the end of the exhibition at the cost of the owners.

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POST-MORTEM NOTES ON CASES OF INFLUENZA WITH A STATEMENT OF OBSERVATIONS

BY

MR. V. S. SRINIVASAN, L. M. P. (MADRAS),
 Madras Medical Department.

THE following are the post mortem notes gathered from a few cases of Influenza which came under my observation.
Case I—A male, aged 22, admitted on the 19th July 1919 with symptoms of Influenza and basal Pneumonia of the right lung. Since admission the patient was quite dull and drowsy, was always complaining of severe frontal headache and vomiting. He was keeping a high continuous hectic temperature. Cultural examinations of his blood and sputum were positive for Influenza bacilli. On the fifth day of his admission the left lung also was found to be affected and the patient gradually sank and died on the 26th July 1919.

On post mortem both lungs were found to be edematous, adhesive pleurisy was noted on the left side. Patches of Broncho-Pneumonia were present especially on the right base and apex. On section frothy fluid exuded through the bronchioles. There was excessive pericardial fluid. Dura mater was found adherent to the skull. Brain was edematous and the vessels were deeply congested. There was no meningitis but

Paper read before the Bombay branch of the All India S. A. S. Association on the 14th September 1919.

a slightly turbid fluid was found in the ventricles and sub arachnoid space. Pus was found in the ethmoidal sinuses, mastoid cells, both middle ears, right frontal sinus and in the sphenoidal sinuses. Cultural examination of brain and lung yielded Influenza bacilli.

Case II.—A male aged 22 admitted on 2nd August '19 with symptoms of Influenza and Broncho-Pneumonia. The patient was keeping a high continuous hectic temperature and was delirious since admission. He was always moaning and groaning and was complaining of frontal headache. He became deaf in a week after admission and developed Keratitis, Iritis and Hypopyon of the left eye with much muco-purulent discharge. Cultural examination of his blood and sputum was positive for Influenza bacilli. Pneumonia became extensive and the patient died on the 15th August 19.

On post mortem patches of solid tissue were noted on both lungs and the lower lobes were found to be more affected. Pus was found in both frontal sinuses, in the antrum of mastoid bones and in the sphenoidal cavity. Cultural examination of lung and brain yielded pure Influenza bacilli.

Case III.—A male aged 32 admitted on the 16th August 19 with symptoms of Influenza and Pneumonia, was delirious since admission and was keeping a high continuous irregular temperature and he died on the 19th August 19. On post mortem the entire right lung was found to be solid and tough, the lower lobe of left lung was also consolidated, crepitant and frothy. No pus was found on section. The right sphenoidal cavity and the right frontal sinus had pus in them. Cultural examination of the lung and brain yielded Influenza bacilli.

Case IV.—A male aged 26 admitted on the 6th September 19 with Influenza and Pneumonia, had a stupid and vacant look since admission, was keeping on a high continuous hectic temperature and died on the 10th September 19.

On post mortem a big pneumonic patch was found on the lower lobe of right lung, the other lobes of this lung and the left lung were unaffected. On section of the affected lobe a bloody frothy fluid exuded. Brain was not edematous but there was slight meningitis with no fluid between the membranes. Right sphenoidal, both ethmoidal and both frontal sinuses contained pus. Cultural examination of lung and brain yielded Influenza bacilli.

Case V.—A male aged 33, admitted on the 6th September 19 with Influenza and Bronchitis, developed definite signs of Broncho-Pneumonia on the 11th September and died the same day. On post mortem lower lobes of both lungs and the upper lobe of the right lung presented numerous patches of consolidation, the lower lobes were in the stage of grey hepatisation and pus was found on section. The brain was edematous. The meninges were not inflamed but a little turbid fluid was found in the ventricles. Pus was found in all the bony sinuses and it was found most in the ethmoidal sinuses.

Case VI.—A male aged 31 admitted on the 6th September 19 with Influenza and Pneumonia, was quite deaf and delirious since admission. He was keeping a high hectic temperature with severe distressing cough and much muco-purulent expectoration. Both lungs were affected throughout and presented patches of consolidation and the patient's general condition was serious. On the night of the 12th September a small tumour was found to have bulged out in front of the neck above the clavicles. On palpation it was soft and crackled under touch and was found to be a surgical emphysema. This bulging began rapidly to grow in size as the patient was hurriedly breathing on and it began to extend downwards in front of both chest, more markedly on the left one. The patient became quite unconscious with a vacant look and open eyes, which failed to re-act to external stimulus and his struggle for breathing became more severe. Oxygen inhalations were tried without effect and he breathed his last on the 13th September

after a struggle of nearly 18 hours after the appearance of the emphysema.

On post mortem both lungs were found to be much edematous, numerous patches of consolidation were found in all the lobes of the right lung. Small abscesses in the substance of the upper lobe and Bronchiectasis of the lower lobe were also present. There were patches of consolidation on the lower lobe of the left lung also but its upper lobe was not so much affected. Streaks of pus and bloody fluid exuded on section, the surgical emphysema detected during life was found to extend throughout the mediastinum. The probable cause of the emphysema appeared to be the rupture of the lung surface at the site of one of the small abscesses. But no distinct mark of the rupture could be traced out on the lung surface. A little turbid fluid was found in the ventricles of the brain, which was found to be edematous. Pus was found in all the sinuses and the middle ears. Cultural examination of the lung and brain yielded pure Influenza bacilli.

Having related so much about the post mortem findings in the above cases I think it may not be out of place to record the observations I have made on 264 cases of Influenza that came under my notice since May last, in the next tabulated form.

TABULATED FORM.

Total number of Influenza cases observed.	Number that developed Pneumonia and Broncho-Pneumonia.	Number that developed capillary Bronchitis.	Number that developed acute Bronchitis.	Number that developed Cerebral symptoms.	Number of uncomplicated cases.	Other complications met with.	Sequelae noted.	Mortality from (1) Pneumonia (2) Capillary Bronchitis (3) other causes.	Percentage of mortality from Influenza in general and relative percentage of mortality from Influenza pneumonia as compared with that from ordinary Pneumonia.	Treatment carried out.	Remarks.
264	77	16	110	18 of the Pneumonia cases showed cerebral symptoms such as head-ache, more often frontal, vomiting, irritability, restlessness, delirium, twitching of the muscles of face and the upper extremities, tremors of the hands and legs and aphasia. All these cases proved fatal and the post mortem findings of six of them have been detailed before.	62	(1) Diarrhoea in 10 cases. (2) otorrhoea with deafness in 6 cases (3) Temporary deafness without aural discharge in 16 cases. (4) Jaundice in 5 cases (5) Epistaxis in 8 cases. (6) Retention of urine in 1 case * N. B. These complications were co-existent with lung complications * (7) Surgical Emphysema in 1 case.	(1) Tachycardia in 15 cases. (2) Ataxia in 1 case. (3) Stammering in 2 cases. (4) Stupidity in 1 case. (5) Tubercle of Lung (collected) in 3 cases.	(1) From Pneumonia ... 49 cases. (2) Do. Capillary Bronchitis ... 18 " (3) Do. other causes ... nil " Total ... 62	Mortality from Influenza in general = 28.11 %. The mortality from Influenza pneumonia, if this complication alone be taken into consideration yielded a percentage of 63.64 which is indeed much higher than that in ordinary cases of Pneumonia where it is said to range between 20 and 40%.	Cardiac stimulants such as hypodermic injections of 16 minims of camphor oil containing 3 grains of camphor six hourly and oral administration of brandy in dram doses four hourly in deserving cases were given from the outset. Hypodermic injections of strychnine and digitalin were given whenever indicated. A mixture containing creosotum III, pot. Iodide grs. V, Vinum Ipeac in X, Tincture Scilla m V, Liquor strychnine Hydrate in IV, Tincture strychnine in X, Mucilage acacia Q S and Aqua camphor ad 1 oz. was given as a routine six hourly. Oxygen inhalations, and blood letting in cases of severe dyspnoea and cyanosis were also carried out.	As a prophylaxis all the sick attendants and other members of staff visiting the Influenza patients were compelled to wear face masks made of a long strip of gauze folded round a thin layer of cotton wool to which a drop or two of oilum Eucalyptus might be added. The mask was made to cover the mouth and nose and it has been found very useful as a preventive.

QUININE IN MALARIA

BY

Mr. B. N. BANDYOPADYAY, S. A. S., *Civil and Military Hospital, Mfudu, B. E. Africa.*

That quinine is a specific for malaria is known to all and the derivative and history of quinine are sufficiently set forth in an article from the pen of an experienced Sub-Assistant Surgeon of Indore published in the Indian Medical Journal. I now propose to throw some light on the method of administering the drug in cases of malaria.

During my service of ten years in the East Africa Protectorate I have seen some qualified physicians, Europeans and Indians alike, discarding injection of quinine on the ground that it causes some serious trouble. Some quote cases of tetanus brought on by the injection of quinine, some of ulcers and abscesses, while others advocate the injection. Having been working all these years in malarial districts I have been able to observe some thousands of cases and I furnish below a summary of my observations:—

My patients were of various nationalities—Europeans, Indians, Arabs, Somalis, Africans, etc., and they had constipation, furred tongue, head-ache, high fever and sometimes nausea and vomiting. The routine treatment adopted was to give them a dose of calomel gr. V at once or sulphate of soda $\frac{1}{2}$ oz. dissolved in 2 ozs. of water in order to relieve the gastro-intestinal congestion by moving the bowels. When the bowels moved, Quinine Bisulphate gr X in an ounce of water was given twice daily, and in some cases gr V three times a day; and this was tolerated in most cases. Some patients would not come for treatment directly on getting fever but only when the quinine tabloids which they had taken of their own accord failed to give any relief. In such cases quinine did harm by irritating the gastric membrane and causing vomiting and nausea and after contraindicating its oral administration. In some cases the administration of

ordinary bisulphate of quinine by the mouth did no good although the blood examination revealed parasites, and in one particular case, although Quinine Bisulphate was given for over a fortnight and the bowels kept open throughout the temperature never came down. So I made chlorine mixture according to Burney Yeo's formula and added to it one drachm of Quinine Hydrochlor and directed that one ounce of the mixture should be taken every three hours. After six doses the temperature came down. In another case, a child of $4\frac{1}{2}$ years suffering from malignant Tertian fever, Quinine Bisulphate by the mouth was tried for six days and the bowels were kept open and yet the temperature did not drop. As the child was averse to take medicine I decided to give it an injection. A 10 grains sterilised solution of Quinine Bihydrochlor (B. W's) was used. The whole solution was injected; the patient tolerated it and in the evening the temperature came down. Afterwards the patient was kept on Quinine Hydrochlor $2\frac{1}{2}$ grains a dose twice daily, and there was no relapse.

I have done more than a thousand injections but have hardly seen any ill-effects arising, except in a few patients who developed abscesses at the seat of injection. These abscesses were obviously due to the carelessness of the patients in the matter of the bandage. I also found that all these ill-effects could be prevented by observing the following technique:—Boil the glass aseptic syringe for 10 minutes; let the patients' buttocks be well washed with soap and warm water by an attendant and afterwards with 1 in 20 carbolic lotion; apply Tinct Iodine to the seat of injection and then with a probe strong carbolic acid may be applied to the spot at which the needle is to be introduced; the sterilised solution of Quinine is then drawn into the sterilised syringe and with one gentle stroke the needle is thrust in and the solution injected. The needle should go perpendicularly to the surface at the point where strong carbolic acid was applied. When the needle is withdrawn Tinct Iodine should be dabbed

again and a little collodium or Tinct Benzoin Co., applied with a little cotton wool, but better if a pad of cotton wool could be applied and bandaged. The syringe need not be sterilised for a second case, but the needle may be dipped in water kept boiling for the purpose or in Tinct Iodine. In this way I have given several injections a day with as little pain as possible to the patients. As a matter of fact many patients began to appreciate the benefits of injection.

The next and most important question is whether quinine can be safely administered to a pregnant woman suffering from malaria. This is a matter about which there is a strong difference of opinion. Sir Patrick Manson says that it can be safely administered, but not in large doses. He limits the dose to 3 grains. Some physicians in this country altogether condemn the administration of quinine to pregnant women. About 12 years ago I saw a case of fever in a pregnant woman in India. The Civil Surgeon asked me what I would do in the matter and I boldly replied to him that I must treat the case with moderate doses of quinine. He then instructed the physician in charge of the case to give 4 grain doses of quinine three or four times a day. The relatives of the patient on learning that the medicine prescribed was quinine never gave it, for fear of abortion, and, consequently the fever rose high and the patient aborted on the fourth day. In 1914 a fellow medical man in this country, whose wife had malaria in the fourth month of pregnancy, consulted me as well as Mr. Vinode and we both decided that quinine should be given or, if bitterness was complained of, injection should be given, without delay. I personally warned him that if the high temperature was left unchecked by judicious doses of quinine the patient was sure to abort. Unfortunately the medical man could not be disillusioned of his idea that quinine was an abortifacient. As the treatment was not followed the patient aborted within a fortnight. Nor was this bitter experience availed of at the next pregnancy a year hence, and no wonder the lady fared no better. In 1913 when I was at Yonté I was called to see a lady

who was sick. I examined her. The temperature was 105° F; it was the third day of her illness and she was in the fifth month of pregnancy; she had much nausea and the bowels had been opened by fruit salt before my arrival. I injected 10 grains of Quinine intramuscularly at about 7-30 P.M. Next morning the temperature was 100° 2. At 9-30 A.M. I gave another injection of Quinine and left the place after instructing the relatives of the patient to take the temperature both in the morning and evening. When the temperature became normal the patient was kept on Quinine 5 grains daily for the rest of the term, especially because the place was highly malarial. The lady delivered a good and healthy child at term. I have seen many cases of malaria in pregnant women leading to abortion for want of proper treatment and also many cases treated with good results. Thus it will be seen Quinine, though supposed to be abortifacient, does give excellent results in cases of malaria.

Some patients are so very susceptible to Quinine that a single dose of 10 grains produces haemoglobinuria. Whilst issuing prophylactic Quinine to constables of Police I saw some of them so completely upset that I had to discontinue it for a fortnight or so and then recommence with 5 grain doses every alternate day during the prevalent seasons. This small dose was tolerated. Such idiosyncrasy was noticed in one out of 30 men, according to the figures of this place. Professor Koch and some other good authorities in India believe that Blackwater fever is caused by Quinine poisoning, so some physicians hesitate to give Quinine in large doses. But I think it is safe to administer it in moderate doses, say 5 to 10 grains.

NOTES ON A CASE OF VINCENT'S ANGINA.

BY

MR. BIRAJ MOHAN DAS GUPTA, *Sub-Assistant Surgeon,
Pasteur Institute, Shillong.*

The patient, a child of 5 years of a wealthy family, having no history of any previous illness, excepting occasional mild attacks of tonsillitis and nasal catarrh developed membrane covering both tonsils, soft palate and both nostrils. There were foul smell in the breath and acrid discharge from the nose. The sub-maxillary glands were swollen and tender. Bowels constipated. Fever ranged from 102 F to 104 F and lasted for about a week with marked prostration. These symptoms and prevalence of Diphtheria in the station suggested Diphtheria and a dose of 4000 units of anti-diphtheritic serum was injected without any improvement.

Three throat swabs at short intervals were taken successively and cultured on inspissated serum for the growth of Klebs Loeffler bacillus with negative results. Finally at the suggestion of Dr. Fox, who suspected the possibility of Vincent's disease, a fourth swab was taken and direct smear examined which showed large fusiform bacilli and spirilla.

Treatment adopted:—Calomel followed by saline, Quinine and tonics and for local application Hydrogen-peroxide, Silvol and kerosine oil (impirical) were tried. On about the 7th or 8th day temperature came down and the throat was clean.

Note.—This case is interesting from the fact that no correct diagnosis could be made from the clinical signs. Each bacteriological examination did not reveal the true nature of the disease so long as only the cultures were examined. As bacillus fusiformis will not grow on ordinary media, direct smears from the throat swab should always be examined when Vincent's disease is suspected and one fails to detect K.L. bacillus in a case of membranous sore throat. Bacillus fusiformis can, however, be grown on serum agar under anaerobic condition and vaccine made in the usual way.

COBRA POISONING.

BY

K. K. ALANDIKAR,

Sub-Assistant Surgeon, Pachmarhi, Central Provinces.

Karimbax, Sanitary Jamadar, age 32, resident of Pachmarhi, came to me at 11 A.M., on 3rd November 1919, saying that he had been bitten 15 minutes before on the palm of his left hand between the thumb and index finger and at the root of the latter by a cobra, which he had reared in his house for a month and a quarter. He was accustomed to catch snakes ever since he was a boy of 12 and the present snake was caught by him in the house of the postmaster a month and a quarter back.

I immediately put on my handkerchief on the arm and on going to hospital a rubber cord. He said the wound was squeezed out and bled by him and a little *pot permang* was applied over it.

Condition on Admission:—11-30 A.M. The patient had walked half a mile to come to hospital. Face anxious. Temp. 98. Pulse 72. Resp. 26. Complained of burning sensation in the bitten part which was slightly swollen. It was washed and examined with lens. It had one small puncture, skin-deep, at the root of the index finger. By this time half an hour had elapsed and no constitutional symptoms had appeared. The patient told me that he had removed both the front teeth (fangs) of the snake after it had been caught by him. This left me in suspense whether he would get poisoning and I thought it better to await symptoms, preparing myself in the meanwhile for the emergency.

12 Midnight. Pulse 64: Resp. 24. Burning sensation in the hand, got shivering, given *Spt. amon. arom.* one drachm. Hot bottles to the extremities.

4-11-19. Pulse 64. Resp. 24. Shivering again. Restless.

12-30 A.M. Complaining of pain in the hand. 10 cc. of 5 p. c. solution of gold chlor. injected in the adjoining area of the bitten part.

- 1 A.M. Severe pain in the arm. Rubber cord and handkerchief removed.
- 1-30 A.M. Pulse 64. Resp. 24. Temp. 98. Calm and quiet. No sleep. *Spt. Ammon, Arom.* half drachm.
- 2 A.M. Pulse 64. Resp. 24.
- 2-30 A.M. Shivering. Hot coffee to drink.
- 3 A.M. Pulse 64. resp. 24. Drowsy.
- 3-30 A.M. Vomited. pulse 60. resp. 26. temp. 98.
- 3-45 A.M. Getting dull. Does not answer questions.
- 4 A.M. Saliva trickling down, speech indistinct, eyelids drooping. Conscious, but says cannot see anything. Swallowing difficult. pulse 64 resp. 28, temp. 98. 80 cc. antivenene D. 31-12-18 given subcutaneously in flanks.
- 4-30 A.M. Pulse 80. resp. 32. Other symptoms as before. Complains of choking in throat. Given 100 cc. antivenene D. 2-11-16 intravenous in right arm.
- 5 A.M. Slight perspiration, ptosis marked, unable to move eyelids and eye-balls. Pupils dilated, saliva trickling, speech markedly indistinct, unable to swallow, conscious. pulse 72. resp. 28. temp. 97. 4.
- 5-30 A.M. No change.
- 6 A.M. No change. 40 cc. antivenene D. 4-1-16 intravenous in left arm.
- 6 to 9 A.M. No change. pulse 72. resp. 28.
- 10 A.M. 80 cc. antivenene D. 1-4-18 and 31-10-18 intravenous in left arm. bladder emptied.
- 11 A.M. Pulse 72. Resp. 32. Temp. 100. Can open eye-lids. Speech indistinct.
- 12 Noon. Pulse 72. resp. 32. temp. 100. Can open eyes and move eye-balls. Can recognise. Speech more clear. Could swallow water.
- 1 P.M. Temp. 101. pulse 120. resp. 32. hot coffee. Speech clear. Can move in bed.

- 4 P.M. Temp. 102. pulse 144. resp. 32. Diaphoretic. Says feels better.
- 8 P.M. Temp. 102. pulse 144. resp. 32. Calomel five grains.
- 12 Midnight. Temp. 101. pulse 144. resp. 32. Had good sleep.

Thereafter, the patient stayed in hospital till 14th instant. Till 9th, his temperature was rising from 100 to 101.2, after which it remained normal till he was discharged. The hand was much swollen during the first three days and became gangrenous. Deep incisions were made in 3-5 places and the hand kept in pot permang. bath. This brought down the swelling and the hand was getting healthy when the patient was discharged.

The snake was replaced in its usual bamboo basket by the man after he was bitten. Eight days later I tried to kill it by immersing the basket in water for half an hour. The snake did not die. So the lid was opened, the snake came out with its hood up and was killed by hitting on the back. It is preserved in spirit. It is a cobra, 4, 3" in length. The left fang is well out of the surrounding tissue though, I believe, smaller in size and the right one shorter than the left and not out of the tissues.

General remarks. Do the fangs come up again after they are knocked down? Is gold chloride of any use? If not, better to stop its use as it sets up a very bad gangrene. I have noticed this in many cases. Is ligature, free bleeding by incising the part and washing by pot. permang not sufficient to prevent the onset of symptoms? Would 100 cc. antivenene given intravenous be sufficient to neutralize the poison? I believe it will be well to stock 200 cc. of fresh serum in every hospital and not to destroy the old serum of at least two years standing.

We quite endorse the suggestion and urge that every hospital and dispensary should be supplied with the serum. 300 cc. at least will be required to neutralise the poison. We would also suggest to the writer that the preserved snake with the notes of the case may be sent to the Natural History Society for the opinion of Col. Wall—Editor.

Our Contemporaries

THE TIME FOOD REMAINS IN THE STOMACH.

The following case is worth adding to the somewhat scanty observations on the subject. It is a note published by Dr. Lucean de Zilwa in the Ceylon Branch of the B. M. A. (Pt 2, Vol. XV, August, 1918). The question will be found discussed by Waddell in Medical Jurisprudence for India (New 6th Ed., p. 166):—

Some time ago I was asked to give an expert opinion on a physiological point arising in a case of murder. A woman was found murdered with a chopper at 5-30 p. m. Her stomach was three-fourths full of rice and bread-fruit curry. There was evidence to show that she had eaten her mid-day meal at 1 o'clock with her husband, who, on his own admission, did not leave the house till 4-30 p. m. He stated that when he went out his wife was alive and well. She was a healthy young woman, 18 years of age, and she had several times complained to the neighbours of being beaten by her husband. The question put to me was, whether if she had been alive at 4-30 p. m., the stomach could have been three-quarters full of rice.

On looking up the literature I found it impossible to get any satisfactory information owing to the lack of a decent reference library in this colony. In Howells' Physiology (1910), on page 698, it is stated that "Cannon has reported some interesting experiments upon the relative duration of gastric digestion for carbohydrates, proteids, and fats when fed separately and combined. The foods were mixed with sub-nitrate of bismuth, and their position in the stomach and passage into the intestine were watched by means of the Rontgen rays. It was found that carbohydrate food begins to pass out from the stomach soon after ingestion and requires only about one-half as much time as the proteins for complete gastric digestion". I could not consult Cannon's original paper as we do not possess the American journal of Physiology.

Best and Cohnheim have reported some experiments on the time various fluids remain in the stomach. The only useful observation I could find was that of Wüloch who states, as the result of radiographic experiments, that carbohydrates remain in the stomach from $2\frac{1}{2}$ to $3\frac{1}{2}$ hours, proteins from 5 to 6 hours, and fats from 7 to $8\frac{1}{2}$ hours.

I therefore thought it necessary to make some fresh observations with special reference to the local diet. I had a boy of eighteen in my ward under treatment for tubercular glands of the neck. He was given a plate full of rice and curry mixed with one ounce of bismuth carbonate. An X-ray photograph was taken by Mr. M. Joseph de Silva, as soon as he had finished the meal, at 1-10 p.m. The outlines of the distended stomach are indicated in the photograph. At 3 p.m. another photograph was taken. The stomach is now seen to be about a quarter of its former size, most of its contents having passed through the pylorus. The photograph taken at 4 p.m. indicated that the stomach was empty, there being only a faint shadow, probably due to some bismuth on the lining of the stomach.

The conclusion is that the stomach, after a full meal of rice, empties itself completely in three hours or less. As these observations were made on a sickly subject whose digestive process might be supposed to be more sluggish than normal, the time in health would probably be even a little less. I exclude from consideration here the retention of food due to paralysis of an injured stomach [I.M.G. Dec. 1918].

ASPIRIN POISONING.

The Lancet, January 11, p. 64—Major F. W. Lewis, R.A.M.C.

In view of the promiscuous way in which aspirin, often self-prescribed, is taken, the following case is of interest.

A Sergeant, U.S.A. aged 24, was admitted to the Thetford Military Hospital on October 25, 1918, with the history of having been taken ill two days previously with influenza. He was powerfully built and gave no history of previous gastric or intestinal trouble. He had been taking aspirin capsules of

his own in addition to 18 five grain tablets given to him by the medical orderly. Instead of keeping to the prescribed dose, he had taken them all, together with a number of capsules in the course of six hours. He did this in order to get fit quickly, as he was under instructions for France.

He was markedly anaemic, temperature 101.4 deg., pulse 120. He vomited undigested milk, with no trace of blood. On October 26 the anaemia was more profound. Pulse, 150 weak and irregular. An enema was administered with little result. The vomiting continued at intervals. Next morning, a large quantity of blood was passed by the bowels and he rapidly became unconscious. He died a few hours later.

Necropsy.—The last five feet of the ileum were acutely congested, and the caecum and colon were loaded with blood clots. The line of demarcation between healthy and congested bowels was very definite. The small intestine was uniformly inflamed. The mucous coat had apparently disappeared, leaving the sub-mucous coat and blood vessels exposed and eroded. Bleeding from this large area had evidently been the cause of death. The other organs were healthy.

Aceto-salicylic acid is known to pass unchanged through the stomach and upper portion of the small intestine, and is then converted into free salicylic acid. Probably this man took nearly 200 grains of the drug into an empty alimentary canal, and the salicylic acid formed caused the removal of the lining membrane of the bowels. The mucous membrane of the caecum and colon appeared to be unaffected.

ANTIMONY IN BILHARZIASIS.

Lancet 1918, Sept. 14, p. 371 (*Tropical Diseases Bulletin*.)

The author recalls that he used antimony in bilharziasis in 1912 and succeeded in causing a disappearance of the ova from the urine in 23 cases. Three preparations were used: (1) Tartar emetic intravenously in doses of 1-1½ gr. dissolved in 5 oz. of water to avoid thrombosis twice or three times a week. (2) Antiluctin intramuscularly and intravenously alternately,

beginning with 0.025 gr. and ending up with 0.2 gr. (3) Colloidal antimony both intravenously and intramuscularly in doses of 0.5 cc. to 2 cc. of a 0.2 per cent. emulsion. Both antiluctin and colloidal antimony appear to be more efficacious than tartar emetic.

FIXED DIETS.

In this Bulletin (Sanitation Number), Vol. 6, No. 5, September 15, 1918, various jail diets are discussed with special reference to the recommendations of Major McCay, I. M. S. In the case of the Bengal jails, where rice has been hitherto the staple grain, the Inspector-General of Prisons Lt-Col. Buchanan, C.I.E., I.M.S. thought it desirable in introducing the change to *festina lente*, and therefore made the part substitution of wheat for rice (desirable for securing additional proteids) a matter of individual choice by convicts. The result has been a steady increase of adoption of the wheat substitution as the convicts have secured practical experience of its advantage. Lt. Col., Buchanan, in his Administration Report of the jails of the Bengal Presidency for 1917 (p. 17) shows by means of the following table that the convicts who elected to add wheat to their diet have acted wisely:—

	Gained weight.	Lost weight.	Bowels complaint.
	Per cent.	Per cent.	Per cent.
Bengal diet* ...	50	23.5	17.8
Wheat ...	55	21.9	12.1

[Tropical Diseases Bureau.]

INTENSIVE PRIMARY ETHER ANÆSTHESIA.

The China Medical Journal, July 1919.—O. T. Logan, M.D.

Intensive ether inhalation is an ideal method for obtaining anaesthesia for the performance of short operations. The average time required for the induction of anaesthesia is less than a minute. It may be given regardless of the time the last meal was taken.

* Also diet at both meals

Technique.—Exclusion of air is the secret of the success of the method. The mask is practically a "tea cosy", made of cloth and non-absorbent cotton. Three large gauze sponges are pinned into the top of the cosy. The ether is poured directly on to these; so there should be sufficient gauze to absorb all the ether—about 5 drachms.

There is a sense of suffocation for a short time when the mask is applied. It is placed over the entire face and held firmly; as there may be some struggling the hands and feet should be secured. Most patients become unconscious after taking 6 to 10 deep breaths.

In fifteen consecutive cases the average time required to produce insensibility was 37.8 seconds, and the average time from the beginning of administration to the time when patient responded to questioning, 7.3 minutes.

(Continued from Page 516 the last issue.)

* * It has been shown experimentally that some of the products of protein disintegration are toxic, producing among other symptoms lowering of the blood pressure, depression, and narcosis, but no attempt appears to have been made to isolate such substances in diabetes. Some experiments I commenced four or five years ago with that end in view had to be abandoned temporarily, but so far as they went, and taken in conjunction with the results of the routine analysis of the urine in a large number of cases, they showed that protein metabolism in diabetes tends to become less and less complete as the disease advances, and that this is associated with a progressive failure in the functions of the liver similar to what is met with in acute yellow atrophy, some of the toxæmias of pregnancy, etc. One of the most striking features of the urine in all severe cases of diabetes is the constant presence of amino-acids, which increase in amount as the disease advances, so that the amino-acid nitrogen often constitutes 50 per cent. or more of the

total "ammonia nitrogen" as estimated by the Malfutti formalin process. In one instance, for example, I found 6.3g. of amino-acid nitrogen out of a total of 7.8g. of "total ammonia nitrogen" in a 24 hours' specimen of urine passed six days before death from coma took place. In three cases where an analysis of the collected 24 hours' urine was made shortly after the pre-monitory symptoms of coma had appeared the amino-acid nitrogen was found to have dropped suddenly and in one had entirely disappeared, although 4.3g. had been present the previous week. The nature of the amino-acids was investigated in 11 cases, three of which eventually died of coma. Tyrosin, histidin, phenyl-alanin, and glycocoll were found in all, while tryptophan, alanin, leucin, and arginin were only met with in the more advanced. In two cases, both of which died shortly after coma, an amine resembling in some respects a toxic base described by Dale and Laidlaw was isolated. Very often a marked increase in the uric acid output, which may reach 8 or 9g. a day, is seen at, or about, the same time as the rise in the amino-acid nitrogen occurs and without any change in the diet being made. As a rule, the curves of excretion of uric acid and creatinin tend to run in opposite directions in diabetes and the rise in the uric acid preceding the onset of the symptoms of coma is no exception, a corresponding fall in the creatinin output usually being seen. Simultaneously the excretion of urobilin in the urine increases. These observations point to the onset of coma being associated with a failure in the functional activity of the liver, and it seems likely that the resulting imperfections in protein metabolism may be a contributory factor at least in bringing about the condition.

In a previous paper I considered the effect of the withdrawal of bases from the tissues resulting from acidosis, and particularly of calcium and magnesium. I there pointed out that a balance between the two appears to be necessary for the smooth and efficient working of the nervous system and that an excessive loss of magnesium is associated with nervous instability. A striking increase in the magnesium and calcium

loss in the urine is a constant feature of all severe cases of diabetes, and it is not unlikely that this loss renders the nervous system more susceptible to the action of toxins formed in the liver and elsewhere. The experiments of Osborne, Mendel, and Ferry lend support to this view, for they found that rats fed on a diet poor in inorganic salts, but otherwise satisfactory, eventually developed coma, and that they could be resuscitated by the administration of a mixture containing calcium and potassium phosphate, sodium chloride, and citrates of sodium, iron, calcium, and magnesium.

If, as the foregoing considerations suggest, diabetic coma is not due to one cause, but is a complication arising from the cumulative effects of several, which result from the general metabolic failure of the diabetic organism, it is clear that treatment directed to one cause is not likely to control the symptoms, at any rate, more than temporarily, and that the only "cure" is to prevent all possible causes by so arranging the diet that (1) the patient's tolerance for carbohydrate, protein, and fat is not exceeded; (2) the total load of food is within his metabolic capacity; (3) the diet is correctly balanced; and (4) a sufficient allowance of inorganic salts is provided. Obviously the earlier in the course of the disease such treatment is commenced the better are the results likely to be and the less difficult will it prove to arrange a diet fulfilling the necessary conditions, but even with advanced cases a surprising improvement can be effected by careful dieting along these lines.

When a diabetic patient is first seen no change should be made in the character of his food. If possible he should be kept for a few days on an ordinary mixed diet of known composition and the opportunity taken to investigate his metabolism by analyses of the urine, blood, etc. The effect of excluding fat from the diet should then be tried. After a day or two on a fat-free diet the protein may be reduced by half. Subsequently the carbohydrate allowance may also be halved, then

the remainder of the protein excluded, and the carbohydrate further reduced, until a diet of green vegetables of low carbohydrate value only is being taken. If sugar is still being excreted in the urine or the blood sugar is high and serious acidosis or evidence of abnormal tissue waste persist, two or three days' "starvation" may be prescribed, but longer continuous fasts are best avoided. Abstinence from food usually has a remarkable effect, improving carbohydrate tolerance, correcting errors in protein metabolism and reducing acidosis, so that patients apparently in a grave condition may often be rescued and put on a metabolic basis that permits of a satisfactory diet being subsequently constructed.

The building up of the diet must be gradual and be carried out in the reverse order to that outlined above—that is to say, green vegetables alone, with a gradually increasing carbohydrate content, should be allowed first, then a very limited amount of fat-free protein, such as boiled white fish or chicken, is added, more carbohydrate is next given, and later the protein is increased until the patient is in nitrogenous equilibrium. When this point is reached fat may be allowed, at first in small quantities and later in larger amounts, but the effect on protein metabolism and the utilization of carbohydrate must be carefully watched by regular examinations of the urine and blood. It is necessary that part of the carbohydrate should continue to be taken in the form of green vegetables, the exact proportion varying according to the patient's tolerance for starchy foods. It is also an advantage if at least one serving of raw vegetable (e.g., as salad) is eaten each day. These precautions not only help to overcome the constipation from which most diabetics suffer, but also ensure a sufficient supply of the inorganic bases that are essential for proper metabolism and render the medicinal use of alkalis unnecessary.

No attempt should be made to work the diet up to a theoretical caloric content based upon the size of the individual. If this can be done without risk so much the better, but the future progress of the case should not be sacrificed for a merely

temporary benefit. The diet must be arranged to suit the patient's present metabolic capacity, not his appetite; in other words, he must be taught "to eat in order to live, not live to eat." The cardinal and very common mistake of an unbalanced diet should be carefully avoided. The effect of an excess of carbohydrate soon shows itself in the urine and is easy to recognize, but the equally deleterious results of too much protein or fat are not at once so evident. The best guide to the protein limit is the nitrogen balance, and the protein allowance should be so arranged that its nitrogen content does not exceed the daily total nitrogen output in the urine by more than 1 or 2 g. So long as this ratio exists further trouble from disturbances of protein metabolism need not be feared. Fat, unbalanced by other foods, is an insidious poison for the diabetic, and every endeavor should therefore be made to keep the fat allowance at a level corresponding to the patient's capacity for dealing efficiently with other foods. For practical purposes it may be taken that the allowance of fat, at least in the earlier stages of treatment, should not exceed the allowance of carbohydrate, or at most not be more than half as much again. A higher proportion is likely to lead to subsequent difficulties, and these are certain to occur if the proportion of fat to carbohydrate is more than 4 to 1. Determination of the fat content of the blood is undoubtedly the best guide for ascertaining the optimum allowance of fat in the diet, but regular estimations of the percentage of sugar in the blood also give useful indications, for a steady increase, especially if not associated with glycosuria, suggests that too much fat is being taken.

I have recently had under my care a patient, sent to me by Sir John Tweedy owing to an eye trouble associated with diabetes, who illustrated this point very well. When I first saw him his blood sugar stood at 0.20 per cent. and he was passing 15 g. of sugar a day in his urine. After a week of treatment the glycosuria had disappeared and his blood sugar had dropped to 0.08 per cent. A week later on a diet containing

50 g. of carbohydrate and 70 g. of protein, but practically no fat, the blood sugar had risen to 0.11 per cent. He was then given fat in gradually increasing amounts up to 60 g., when it was found that the blood sugar had risen to 0.18 per cent., although there was no sugar in the urine. On dropping the fat to 10 g. but not otherwise altering the diet, the blood sugar came down to 0.11 per cent. again. A return to the previous allowance of fat was followed by a rise in the blood sugar to 0.18 per cent., but still without glycosuria. * * *

—*The Lancet*, January, 11, 1919.

HAEMORRHOIDS.

In the Medical Press of April 10, 1918 (p. 278), appears an article based on the author's experience in over 300 cases of haemorrhoids treated by the injection of quinine and urea hydrochloride solution (5 per cent. in most instances; 10 per cent. in a few resistant cases). The author has found that this treatment is uniformly successful in chronic internal haemorrhoids with protrusion and bleeding as their chief symptoms, but does not consider that it is suited to inflamed, strangulated, or external piles. In about 50 per cent of his cases protrusion was remedied by a single injection.

The pile having been cleaned with an antiseptic solution, preferably iodine and alcohol, enough quinine and urea solution should be injected to distend it slightly. The needle should be inserted at a point as far from the skin margin as possible, and the injection made through, not into, the mucous membrane. The patient can go about his usual avocation without restrictions. [B. M. J. Sept. '19.]

PROCEEDINGS OF THE BRANCH MEETINGS.

AGRA BRANCH, 6th September, 1919:—8 members were present including the Chairman Mr. Hari Singh Bisht. In addition to appointing a committee for the management of the O'Meara Medal Fund the following resolutions were passed. (1) That an appeal for funds for the said medal be sent to the Sub-Assistant Surgeons all over India, (2) That a vote of thanks be conveyed to Lt.-Col. O'Meara for the help rendered by him in securing commissioned rank for Military Sub-Assistant Surgeons (3) That the next Annual Provincial Conference be held at Lucknow in the next cold weather and (4) That the authorities be moved to appoint one more L. M. P. to the State Board of Medical Examinations. Mr. Avadh Behai Lal, House Physician, Thomson Hospital, Agra read an interesting paper on "Neurasthenia."

5th November, 1919:—8 members were present including the Chairman Mr. Chodda Lal. Resolutions were passed regarding the design of the O'Meara medal, the conditions of award, the controlling agency and such other details of the scheme. Discussed and passed Mr. Rochiram's amendments to the rules of the Association.

BARODA BRANCH, 23rd November, 1919:—Ten members were present, including the Chairman Mr. Ambaram Harisbankar Joshi. Mr. Hari Bhaskar Pandit was elected as a delegate to the Poona Conference. Resolved also that the Chief Medical Officer be moved to raise the present rate of house rent allowance and to allow pay according to the revised scale to all Sub-Asst. Surgeons, irrespective of individual disabilities.

CALCUTTA BRANCH, 4th May 1919:—12 members were present, including the Chairman Mr. Atal Behari De. A paper on "Sources of Diseases and their Treatment" sent by Mr. Beni Madav De was read and discussed. Resolved that a letter of congratulations be sent to Lt. Col. J. K. Close on his appointment as Surgeon-General with the Government of Bengal and that he be also requested to be the patron of the Calcutta Branch like his predecessors.

1st June 1919:—17 members were present, including the Chairman Mr. Kaliprasanna Sen. Mr. Amrita Lal Bhattacharjee read a paper

on "Scarlet Fever." It was also resolved that the Sanitary Commissioner of Bengal be addressed for information as to whether the products of the Medical Schools will be admitted for the proposed D.P.H. class and whether D.P.H. is a University degree or only a State diploma.

6th July 1919:—10 members were present, including the Chairman Mr. Rajeswar. Resolved that the President of the E. B. Ry. Board be addressed for the grant to Sub-Asst. Surgeons in Railway Service (1) of personal allowances corresponding to the recent general enhancement of pay sanctioned for all Railway employees (2) of second class duty passes, irrespective of grades (3) of enhanced rates of fees for attendance on the families of Railway subordinates (4) of more favourable rules for daily allowance for absence from head quarters and (5) better quarters.

10th August 1919:—13 members were present, including the Chairman, Mr. Atal Behari De. A paper on "Cholera" was read by Mr. Nirmal Chandra Ghosh. Resolved to address the General Secretary and the Editor for a list of members in Bengal and about the irregularity in the supply of the Journal.

24th September 1919:—15 members were present, including the Chairman, Mr. Taraknath Ray. Resolutions were passed, with some remarks, regarding the Ramachandrier Memorial, the location of the proposed building, the rate of subscription for the Journal, the travelling allowance of the delegates and the centralisation of offices.

GUZERAT (AHMEDABAD) BRANCH, 8th November 1919:—3 members were present. Resolutions were passed regarding the death of Col T. Jackson, the selection of Mr. S. L. Sharma of Meerut by Government to give evidence before the coming Jail Commission and the pay of Sub-Assistant Surgeons in the service of the Ahmedabad Municipality.

CENTRAL INDIA BRANCH, INDORE, 1st June 1919:—15 members were present, Mr. Sharungpani being in the chair. Family Fund proposals suggested by the members of the Select Committee (Messrs. Sharungpani, Nivasarkar, Vyas and Khandekar) were read by the Secretary of the Select Committee and discussed.

29th June 1919:—9 members were present, Mr B. Y. Kulkarni being in the chair. Mr. Gosavi read a paper on "X-ray" treatment in

skin diseases. Resolved to send a message of congratulation to Mr. Sharangpani on his promotion to the rank of Assistant Surgeon and to the State Surgeon, Rao Bahadur Dr. P. R. Bhandarkar thanking him for his recommendation.

7th September 1919:—14 members were present. Mr. Sharangpani being in the chair. Mr. Patwardhan read a paper on "Difficulties in diagnosis of the abdominal tumours," followed by remarks from Mr. Khandekar and the chairman Mr. Sharangpani.

A resolution of condolence over the death of Rao Sahib Mr. A. S. Malve, past Editor of the Indian Medical Journal was passed and communicated to the bereaved family.

LUCKNOW BRANCH, 9th November 1919:—Mr. Ahmad Hasan presided. Passed the accounts for September and October. Fixed the dates of the subjects committee meeting, the U. P. Conference and the anniversary of the local branch. Resolved to approach the I. G. of Civil Hospitals to preside at the Conference and to allow four days casual leave to all Sub-Assistant Surgeons intending to attend the Conference.

MANDALAY BRANCH, 13th September 1919:—11 members were present, including the Chairman Mr. P. I. Kumaran. Resolved that the I. G. of Civil Hospitals in Burma be requested to move the Government for very early sanction of the enhanced scale of pay for Sub-Assistant Surgeons. Appointed a Committee for drafting replies to the set of interrogatories of the Jail Commission.

27th September 1919:—8 members were present including the Chairman, Mr. P. I. Kumaran. Read and confirmed the minutes of the last meeting. Approved the Committee's draft reply to the interrogatories of the Jail Commission.

3. Mr. D. C. Veramoni read an interesting paper on "Black Water Fever," dwelling particularly on the causation and treatment. There was a lively discussion, the consensus of opinion in Burma was that this disease was nothing separate from "Malaria" but a distinct manifestation of Malaria in the system.

4. Dr. Niazahamad read the notes of a case of Dysentery which had a peculiar rise of temperature and no "Amoebae" were found in the stools for about six weeks though the stools were examined on several occasions. The disease was treated with quinine and saline for a long

period with temporary relief. There were several relapses and the patient was over six weeks under treatment, apparently with no benefit. At the end of this period another relapse with more bloody stools occurred; this time also the motions were examined microscopically, when for the first time "Amoebae" were found. Emetine, one grain, was injected daily for six days and the patient made a rapid recovery and was discharged from hospital thoroughly cured. It was suggested that it might have been a case of "Encysted Amoebic infection of the Intestines."

MEERUT BRANCH, 29th April 1919:—4 members were present and Mr. S. L. Sharma presiding. The proceedings of the last meeting were read and confirmed. A number of resolutions were passed touching the internal management of the U. P. Branch.

22nd May 1919:—5 members were present and Mr. S. L. Sharma presiding. Mr. Bhagwan Sahai Singh read a paper on "The treatment of Dysentery". A number of resolutions were passed touching the working of the U. P. Branch.

18th June 1919:—7 members were present and Mr. S. L. Sharma presiding. Mr. Kunj Behari Lal Varma read a paper on "The Therapeutic value of pancreas". A Sub-Committee was appointed to formulate proposals for working the Delhi scheme.

29th June 1919:—(Extraordinary and urgent meeting). 7 members present and Mr. S. L. Sharma presiding. A number of resolutions were passed regarding the working of the U. P. Branch.

14th July 1919:—(Extraordinary General Meeting) 8 members were present and Mr. S. L. Sharma presiding. Raised subscription for the Delhi Fund.

21 members present and Mr. S. L. Sharma presiding. The president and Mr. Kunj Behari Lal Varma appealed for funds for the Delhi Scheme and there was a liberal response on the spot. Resolutions were passed inviting the attention of the authorities to the desirability of appointing Sub-Assistant Surgeons in Municipalities, Town areas and notified areas as Health Officers and ex-officio members of the boards concerned, of enforcing the retirement of Sub-Assistant Surgeons on completing 30 years service, of avoiding callous detention of Sub-Assistant Surgeons summoned as witnesses before courts; and of rescinding the

existing orders whereby Sub-Assistant Surgeons who fail thrice in their grade examinations can be discharged from the service.

17th August 1919 :—8 members present and Mr. S. L. Sharma presiding. The minutes of the last meeting were read and confirmed. Mr. Kunj Behari Lal Varma read a paper on "The Prophylaxis of Influenza." A resolution was passed approving the idea expressed by Khan Sahib Mr. Zahid Husain to resign his seat in the U. P. State Board of Medical Examinations.

10th September 1919 :—8 members present and Mr. S. L. Sharma presiding. The proceedings of the last meeting were read and confirmed. The following resolutions were passed :—Expressing gratitude to the Hon'ble Col. C. Mactaggart for his services in the cause of Sub-Assistant Surgeons; that the subordinate medical service in Jails should be constituted into a distinct service with emoluments ranging from Rs. 100 to 400, rank superior to Jailers and designation "Assistant Medical Officers," that capable Sub-Assistant Surgeons should also be promoted to the rank of "Medical Officer and Superintendent of District Jail" and that a compounder be allowed for every District Jail Hospital; that the Government be moved to select three witnesses from the Association to give evidence before the Jail Commission; that the subscription for the journal be raised to five rupees and that the travelling expenses of delegates to the conference be borne from the general funds.

20th October 1919 :—4 members present and Mr. S. L. Sharma presiding. The proceedings of the last meeting were heard and confirmed. A Sub-Committee was appointed to draft resolutions for the next Provincial and All-India conferences. Mr. Shujat Ulla read a paper on "Anal Abscesses and Fistulae."

RANGOON BRANCH, 12th September, 1919 :—9 members present and Mr. Jewal Singh presiding. Mr. Sarni showed a specimen of Cystic kidney and cholestrin crystals collected from that kidney. He also gave *post mortem* notes about the case.

27th September 1919 :—9 members present and Mr. Ram Lal Sircar presiding. Considered the notes of evidence to be given before the Jail Commission.

3rd October 1919 :—18 members present and Major Whitmore presiding. Major A. Whitmore showed a case of Tumour Tibia suspected

as sarcoma in a young Anglo Indian boy. Dr. David showed a case of separation of lower epiphysis elbow which was treated by acute flexion.

A man who had paralysis of the arm was explained to be a case of Brachial monoplegia by Dr. Tha Doe. Dr. Narain Rao read short notes on a case of rat bite fever.

Dr. Chakko exhibited a case of arthritis which he thought was a complication of Influenza. Major Whitmore explained that Influenza always brings out any latent disease in a person and most probably the latent Gonorrhoea in this case showed itself during the Influenza attack.

Major Whitmore described a case of fibroid kidney in a man who came to hospital with severe oedema, exhibited the patient and discussed the treatment of such patients with a salt free diet. He showed another case of oedema which did not yield to a similar treatment and discussion went to show that in that patient the liver was also affected. Dr. Fink spoke on oedema as the result of deficiency of protein in blood.

Dr. Kunder said that in case of Parenchymatous nephritis the already tight capsule of the kidney would be abnormally tight and described good results from the operation of Decapsulation in such conditions.

Dr. Menon described a case of amoebic dysentery in a pyorrhoea alveolaris case where after emetine injections there was marked improvement in both conditions.

SEUNDERABAD BRANCH, 12th December 1919 :—Col. W. G. Pridmore, I. M. S. presided. There were demonstrations of cases, of microscopic slides and brief notes of each case. Mr. K. Ramachandran read a paper on "Water and Water borne Diseases," followed by a lively discussion.

SHILLONG BRANCH, 14th September, 12 members were present, including Mr. A. C. Das Gupta who presided. The proceedings of the last meeting were heard and confirmed. Resolved unanimously that all Sub-Assistant Surgeons of and above the 1st Grade should subscribe Rs. 10 each and those below Rs. 5. each for the Ramachandrier Memorial Fund. It was unanimously agreed that half the cost of travelling incurred by the delegates to the conference should be borne by the

delegating Branch and the other half by the delegate himself, and that the annual subscription for the Indian Medical Journal be raised to Rs. 4.

SURAT BRANCH, 12th October 1919 :—11 members present and Mr. J.J. Athugar presiding. The minutes of the last meeting were heard and confirmed. Resolved to send a letter of congratulation to Mr. Joseph Benjamin on his election to the Bombay Medical Council. Mr. Kamalashankar read a paper on "Ankylostomiasis".

30th November 1919 :—7 members present and Mr. Athugar presiding. The minutes of the last meeting were heard and confirmed. Approved the idea of a memorial for the late Mr. Ramachandrier but not all the recommendations of the Memorial Committee. Mr. Jamaitram B. Desai was elected as a delegate to the Poona Conference, Miss. Isabella Paes read a very interesting paper on "A High Ovarian Cyst".

Letters to the Editor.

The Detection of Hookworm Infection.

This article is not an original one and most of the information contained in it is borrowed from the Indian Medical Research Journal of July 1918.

Ever since the microscope came into use, the diagnosis of hookworm infection has become quite easy. When I was a student i.e., 3 years ago, the diagnosis of hookworm infection was carried out as follows :—

A small quantity of the suspected stools was mixed with normal saline and a drop of it was put on a clean slide covered over by a cover slip and examined with a low power lens. The results of the examination from the same specimen never tallied. That particular portion of the stools examined might not have contained any ova or the ova might have been covered up by the bigger and coarser matters contained in the stools. The results of this method of examination of the stools were quite unsatisfactory.

Of late the centrifuge has taken its place and is being universally adopted. The wide use of the machine is quite a sufficient advertisement of its efficiency. Even the centrifuge has its own defects. Wenyon and O'Connor examined a man's stools on 46 different occasions with the centrifuge method and they found hookworm ova only on 14 occasions. The reason for the unsatisfactory result lies mainly with the centrifuge. The action of the centrifuge depends on various factors :—

1. The mass of the body.
2. The specific gravity.
3. The rate of the machine.
4. The shape of the body.

The centrifuge produces a concentration of ova at the bottom of the centrifuge tube. Centrifugalisation as ordinarily carried out consists of two processes, viz :

1. Filtration and
2. Centrifugalisation.

Filtration :—The idea of filtration is to remove coarse particles present in the stools and to get as little a deposit as possible which should contain all the ova present in the original quantity of the stools taken for examination. To carry out this method satisfactorily one requires a gauze piece or wire gauze. The stools, if hard, should be thoroughly broken up. To solve this difficult problem, one will do well to examine the stools after a *saline purge*. If in any case a hard stool has to be broken up, the addition of a drop or two of ether will facilitate the process and ensure a thorough emulsion. Now having broken up the stools and made a fine emulsion of it add enough water and filter it. Dr. Clayton Lane uses a wire gauze which has one hundred meshes to a linear inch. But I am able to get only muslin which contains 50 meshes to a linear inch. My results are quite satisfactory. By using such a gauze, coarse particles will be removed and only the ova of intestinal parasites, amoebic cysts, etc. will pass through the meshes.

Centrifugalisation.—To do it properly one should know its action. As enumerated above, the action of the centrifuge depends on various factors. Supposing that we make a complete suspension of the insoluble faecal matter and centrifugalise

starch cells and muscle fibres etc., are washed away, only leaving the hookworm ova sticking on the slide. I had very poor results from this method. Probably the washing was done badly.

Doctor Clayton Lane has improved the technique a good deal and made the system "Foolproof". He describes the exact quantity of stools to be taken and how an ordinary illiterate Indian Toty can take it. Then he mentions his wire gauze of 100 meshes to an inch which he uses for filtration. Then he says that the centrifuge should be rotated one thousand five hundred times in one minute. But so far the technique is foolproof, and as regards the washing of the slide even experts may fail. Can we not make this also foolproof? Cannot the hookworm ova be fixed to the slides as a bloodslide is fixed by ether and absolute alcohol? Yes. My method is as follows:—To the deposit in the centrifugal tube add 60 drops of a fixing solution which is prepared of formalin 1 part, absolute alcohol 2 parts, and water 10 parts. After shaking the contents well, pour it on a clean slide—of course devoid of grease—and keep it aside for 5 minutes. Throw off the supernatant fluid without agitating the slide. Repeat the process once again. The slide will only contain the ova of intestinal parasites and nothing else. The ova are fixed to the slide so much so that a few drops of water can be run over the slide, gently agitated and thrown away without washing off the ova. The formalin acts as an antiseptic and fixative. It does not deform the ova in any way.

I request those of my friends who take an interest in hookworm infection and who have access to laboratories to try this method and let me know the results.

SIR,

It being not possible to thank all those who supported me in my election to the Bombay Medical Council I beg to express my hearty thanks to them all through the medium of our journal. I am much grateful to them for their kind help.

JOSEPH BENJAMIN.

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THE REORGANISATION OF MEDICAL SERVICES IN INDIA.

II

In a leading article on the above subject published in the last number we discussed the case of Civil Sub-Assistant Surgeons. Before proceeding with the case of the Military Sub-Assistant Surgeons, whose cadre at present is by no means less large, we must refer to the A. P. I. telegram published in the local dailies announcing the enhancement of the scale of pay of our brethren in Burma. The details are not yet to hand; therefore, while we offer our hearty congratulations to our Burma brethren we reserve our comment on the scheme for a future occasion. There are also persistent rumours that the pay of Civil Assistant Surgeons has since been raised to Rs. 200-500. We very much wish the rumours were true and in anticipation of official confirmation of the same we offer our congratulations to these, our elder brethren. It is at the same time our fervent hope that the comparatively better pecuniary position which they will soon find themselves in will not aggravate their apathy for us, their younger brethren, but rather enable them to offer with a clean conscience the hand of generous confidence, of sympathy and affection.

Let us now take up the case of our brethren in Military Service and see what it is like. Under existing

orders a Military Sub-Assistant Surgeon has to complete five years service as "Warrant Officer" before the Commissioned rank can be conferred upon him. And what is this "Warrant" rank? It is an ambiguous, anomalous rank as bad as no rank at all. It is the common sphere of the Sepoys who are recruited from a class of people that can lay no claim to education and mental culture of any kind. We cannot imagine the object served by this quinquennium of enforced humiliation and indignity which the Military Sub-Assistant Surgeon has to pass to qualify himself for the Commissioned rank. Further, since the outbreak of the great war a number of Civil Sub-Assistant Surgeons of pretty long standing-men with 10, 15 and even 18 years service in the Civil Medical Department—have been transferred to military service and the feeling that has been created in their mind by having to take their place with ordinary Naiks and Havildars can better be imagined than described. In 1902 when a proposal was advanced to make the Indian Articles of War applicable to Civil Hospital Assistants detailed for military duty the then Government of India vetoed the proposal. Again, seventeen years later, in 1919 it was decided that as these men were gazetted as Commissioned and Warrant Officers they should take up alike the privileges and penalties of their position. So far as the Sub-Assistant Surgeons holding Commissioned rank are concerned there is at least a status which they may satisfy themselves with and be proud of, but we fail to see anything that can be called a privilege in the case of those groaning as 'Warrant' Officers and we may as well ask why these unfortunate men should be subjected to the penalties alone without any corresponding privileges. And yet the D. M. S. in India says that the question of granting the rank of Jamadar to Military Sub-Assistant

Surgeons of less than five years service and to Civil Sub-Assistant Surgeons on entering military service cannot be taken up until it is known whether the scheme for an Indian Medical Corps School will mature. Though such is the fate of our men who are already in military service yet the charge is laid at our door that we are apathetic to military service.

With the introduction of the Indian Station Hospital System the Military Sub-Assistant Surgeons have been deprived of all the special allowances which they had been drawing and their pay has been fixed at Rs. 60-125. When this scale was conceived nobody could possibly have foreseen that the times would change so soon and so considerably and make the scale such a patent anachronism. Within the last few years, and especially since the outbreak of the great world war the prices of food stuffs and clothing have risen by two to three hundred per cent. and even the well-to-do people have begun to feel the appalling situation. The peculiar conditions obtaining in Indian Society, the exacting nature of the duties of the Military Sub-Assistant Surgeons and their liability to frequent transfers from one corner of the country to another often preclude them from keeping their families with them, and in consequence, they have to maintain two establishments, one for themselves at the place where they happen to be serving and the other for their families. The majority of them find it extremely difficult to make both ends meet with their paltry salary of Rs. 60 or 70 and have to deny to themselves even the most ordinary conveniences and comforts.

On the other hand the Military Assistant Surgeons possessing the same general and professional qualifications are allowed a pay of Rs. 100-500 besides the usual allowances and have chances of jumping into the lucrative and

more congenial office of Civil Surgeon. Take again the case of the L. M. S. whose course of training is only one year longer than ours. He may be one who has just passed out of the College, and yet if he offers himself for general medical service he is immediately given a Royal Commission in the Indian Medical Service and the rank of lieutenant with a pay of Rs. 420 while in India and Rs. 540 while out of India. He is also allowed a sum of Rs. 600 for his preliminary equipment and an annuity of about Rs. 900. Look at this picture and that. What a striking contrast! What an invidious distinction! What an indefensible disparity of pay and other allowances.

Nor are these the only disabilities which our Military Sub-Assistant Surgeons are pining under. In the case of all other ranks of the Army, combatants or non-combatants, the families of those that are killed in action are allowed family pension, which is half of the pay of the deceased. But in the case of the Military Sub-Assistant Surgeon the matter is viewed with much less sympathy. He might have served for twenty years and be drawing Rs. 95 a month and yet if he is killed in action his family will get a family pension of Rs. 15, only. With this small pension, which comes to about eight annas per day, the bereaved widow will have to maintain herself and her children, not to speak of the education of the children and such other responsibilities that devolve upon the parents. Quite naturally the widow finds it impossible to make both ends meet and drifts into chill penury, and the children whose father has given his life to the King and the country are left homeless, clad in rags, half-starved and without proper education.

The treatment accorded to our men in connection with the War Gratuity is another prolific cause of dissatisfaction and disgust. For purposes of this War

Gratuity Senior Sub-Assistant Surgeons of the first and Second classes have been ranked with Subedars and Risaldars and allowed a gratuity of Rs. 60, plus Rs. 5, for each month of active service, some others have been ranked with Jamadars and allowed Rs. 50, plus Rs. 4, for each month's active service, while those holding the warrant rank have been ranked with Sepoys and allowed Rs. 12, plus Re. 1, for each month's active service. In 1911, on the occasion of the coronation of His Majesty the King a bonus of 15 days' pay was granted to all ranks of the army, except officers, and to all public servants in civil departments whose pay was less than Rs. 50. In those days the pay of Military Sub-Assistant Surgeons of the third and second grades was only Rs. 25 and 40 respectively, and when they claimed the bonus it was denied to them on the ground that they were ranked as "Officers." If, as then interpreted, these men are "Officers," superior to the Sepoys, we fail to see the equity of ranking them with ordinary Sepoys on the present occasion. Instances of such unfairness towards our men can be quoted by scores but it is not our purpose for the present to enter into such vexing details.

The numerous complaints that have come to our notice from time to time, the great difficulty experienced in the course of the late war in securing an adequate number of Sub-Assistant Surgeons for military duty and the extraordinary coolness and determination with which many Civil Sub-Assistant Surgeons detailed for military duty resigned their jobs and even preferred dismissal to service with the army, lead to a strong apprehension that the subordinate military medical service is fast becoming unpopular and a career of regrets. The contentment and cheerful co-operation of these men are of no little importance in maintaining the efficiency of the

army. Scores of Indian Medical Corps Schools may be established in each province and hundreds of medical men may be turned out every year from these schools, but all these measures may hardly be of any avail so long as the conditions of service are not substantially improved. The young recruit to the cadre should be buoyed up by a sense of a status in the army befitting the society from which he has been extracted and the dignity of the profession which he has chosen, and the enthusiasm of youth should be sustained by legitimate hopes of future prospects. We consider that the dark features of the service are largely due to the *ex parte* character of the decrees of the Army Head Quarters which shapes the destinies of these men. To remedy this fundamental defect, provision should be made to take into the councils of the Army Head Quarters a representative of the Military Sub-Assistant Surgeons who can fearlessly and faithfully voice forth the feelings, and protect the interests, of his constituents. Then the Military Sub-Assistant Surgeons and Civil Sub-Assistant Surgeons detailed for military duty should be given the commissioned rank to start with and the pay of the former should be fixed at Rs. 100—400, the other allowances now drawn by Military Assistant Surgeons being granted to our men also. It is absolutely impossible that one in the position of a Military Sub-Assistant Surgeon can get on with a pay which is less than Rs. 100 to start with. There is a good deal of dissatisfaction in regard to the quarters provided for the junior Sub-Assistant Surgeons. The Indian Station Hospital system provides for only one building containing two rooms, 15' x 10' each, one kitchen 6' x 6' and one bath room 6' x 5' for two Junior Sub-Assistant Surgeons. We fail to see the wisdom of this type design, unless it was the intention

of the authors of the system that junior Sub-Assistant Surgeons should lead a life of celibacy; otherwise there is no meaning in providing only a single kitchen 6' x 6' for two tenants and making no provision at all for a room for keeping provisions and utensils. There should be separate quarters for each Sub-Assistant Surgeon, or, if that is not possible, the present type design should be suitably altered so as to afford the necessary convenience to both the occupants. Every prudent man is expected to make some provision for his family and this duty is all the more incumbent in the case of those employed in the army. For this purpose the Postal Life Insurance Scheme should be open to Military Sub-Assistant Surgeons also. The rate of Family Pension admissible in the event of the officer being killed in action, should be raised to a level with that admissible in the case of the other ranks of the army.

The above is a brief statement of the main disabilities and grievances of Military Sub-Assistant Surgeons. We are afraid we have rather understated the case than overstated it. Our representatives have already done full justice to it while giving evidence before the Reorganisation Committee. We have no means of knowing at what stage the report of the Committee stands and what view the Committee has taken of our case. Whatever it may be, we must do our duty and that duty is to appeal to the conscience of the authorities for a dispassionate consideration of the case, for a realisation of the moral obligations which they owe to our men, for bare justice.

Editorial Notes.

The Bombay Medical Council.—We are glad to announce that Mr. Joseph Benjamin, President of the Finance Committee of our Association has been elected as a member of the Bombay Medical Council. Mr. Benjamin is a private medical practitioner of Ahmedabad whose long connection with the Association, sincere, unostentatious and selfless labours for the upliftment of his brethren in the profession mark him out as one eminently qualified for the seat to which he has been elected. We offer him our hearty congratulations and wish him all success in this additional sphere of activity.

While in every other province two seats, and in Burma four seats, are held by men of our class, in Bombay the Medical Council was till now conspicuous by the absence from it of the Sub-Assistant Surgeon element. But, let by-gones be by-gones and the present and the future make amends for the past. We understand that another seat has since fallen vacant by the death of Lt. Col. Jackson, I.M.S. It is hoped that our brethren in Bombay will take time by the forelock and secure this seat for one among themselves who will be a source of strength to Mr. Benjamin.

The Assam Medical Council.—We are also informed that Rai Sahib Mr. Kali Mohan Sen, Teacher, B. W. Medical School, Dibrugarh and Mr. Jotindra Mohan Bose, Chief Commissioner's Staff, Shillong, have been elected as members of the Medical Council, Assam, and we offer our hearty congratulations to them also.

Assistant Surgeonship.—We are glad to announce that Mr. Sharungpani of Indore, an enthusiastic worker in the cause of our Association, our Associate Editor for the last few years and President of the Central India Branch, has been promoted to the rank of Assistant Surgeon by the orders of the Holkar Durbar. We congratulate our friend Dr. Sharungpani on this promotion which he so richly deserves and thank the Indore Durbar for following the generous example of the Imperial

Government. The Native States of Indore and Gwalior have taken the lead in promoting Sub-Assistant Surgeons to the rank of Assistant Surgeon and it is hoped that other states will earnestly follow the example. In the province of Assam Mr. Profulla Chandra Bannerjee, a Sub-Assistant Surgeon, has been promoted to the grade of Assistant Surgeon, and we congratulate him on the well-merited promotion.

An M. A., L.L.B. Sub-Assistant Surgeon.—Our readers will be glad to hear that Mr. Vyas, M.A., L.L.B. and Sub-Assistant Surgeon, who was working as Joint General Secretary of our Association for a few years has found a different field of activities, best suiting his new qualifications. He has been appointed as the Chief Officer of the Nagpur Municipality. A double graduate in Arts and Laws and a perfect student of Medicine, we have strong hopes that the Nagpur Municipality will be much benefited under such an officer. We congratulate Mr. Vyas on this appointment and wish him every success. It is further hoped that the prudence of selecting a medical man as a Municipal Officer may be copied by other Municipalities, which in our opinion is a sure step towards improving the sanitation and health of our cities and towns.

The O'Meara Medal.—The Agra Branch has sent round appeals to our brethren all over India for funds for founding a medal in memory of Lt. Col. E. J. O'Meara, Principal of the Medical School, Agra. To those of our readers who have been watching the progress of the Agra Medical School during the past eight years and the several reforms in medical education in the United Provinces summarised and embodied in what is known as "The Agra L.M.S. Scheme", Lt. Col. O'Meara must be a familiar name. By his sympathy with our aims and aspirations and his unceasing labours for the progress and prosperity of our class he has laid us under a deep debt of gratitude. We heartily support the decision of our Agra brethren and trust that our members will make a liberal response and ensure the success of the movement.

A Welcome Address.—During his recent visit to Sukkur the Hon'ble Major-General W. E. Jennings, Surgeon-General with the Government of Bombay was presented an address of welcome by the Sub-Assistant Surgeons of the district. Space forbids the publication of this pathetic address, but yet we feel we cannot pass over one important statement made therein viz., that some of the important appointments hitherto held by Sub-Assistant Surgeons are now being gradually wrested away from them to be conferred upon Assistant Surgeons. It would appear there is a proposal to place the "Rohri Engine shed" dispensary in charge of an Assistant Surgeon although it has hitherto been in charge of a Sub-Assistant Surgeon. We have often protested against such attempts to deprive our class of even the few important charges that at present afford them chances of distinguishing themselves and winning recognition. Two Indian I.M.S. Officers, Lt. Col. C. R. Bakhle and Major M. S. Irani have expressed that there is no need for this innovation, and we hope that the sympathetic Surgeon-General also will veto the proposal.

An Appreciation.—The Rasra Notified Area Committee has, with the approval of the District Magistrate, granted a personal allowance of Rs. 60 per annum to Sub-Assistant Surgeon Mr. Puran Mal of Rosra dispensary in appreciation of the valuable services rendered by him in connection with the epidemic disease. We congratulate the recipient of this reward and thank the Committee for its generous appreciation.

A Contribution to the Association.—The General Secretary acknowledges with thanks the receipt of the sum of Rs. 100 sent by Mr. Ram Narain Lal, Secretary, Reception Committee of the 12th Annual Conference, held at Agra in 1917 as the Committee's contribution to the funds of the mother Association.

ERRATA.

- In our editorial note on the pay of Sub-Assistant Surgeons in Burma in page 368 of the August number we have said "The scale in force there was fixed *more than a quarter of a century*

ago." This statement is contradicted by the I.G.C.H. Burma who says that the scale came into force only in 1911 and adds that the proposals for revision have been submitted to the Government of India. We thank him for the information and hope that the expected relief will be obtained soon. While we go to press we hear that the revised scale has since been sanctioned. The A.P.I. telegram on the subject is as follows:—

"Pay of Burma Sub-Assistant Surgeons"

RANGOON, DEC. 19.—The Secretary of State for India has sanctioned the revised scale of pay for Civil Sub-Assistant Surgeons in Burma which is to come into force from December 1st 1919 if money be available, otherwise from March 1st 1920. The starting pay is Rs. 75 monthly to be raised to Rs. 120 by biennial increment Rs. 5 in 18 years subject to passing an examination in their fifth and tenth years. After 18 years service there will be an increment of Rs. 10 biennially to Rs. 150. After 24 years service there are two senior grades of Rs. 175, (six and two-third per cent. of the strength) and Rs. 200 (Three and one-third per cent. of the strength.)

As there is a good deal of doubt, especially among the Civil Medical Subordinates, as regards the exact status of those of them that have been detailed for military duty we publish the following correspondence for their information. From this it will be clear that a Civil Sub-Assistant Surgeon on military duty, whatever the length of his service in the Civil Medical Department, is not eligible for the commissioned rank unless he has served as a 'warrant' officer for not less than five years. This is one of the points discussed in our leading article.

Copy of a letter No. 761-90, dated 20th June 1902, from W. S. Marris Esq., Under-Secretary to the Government of India, Simla, to the Secretary to the Government of Bombay, General Department, etc. :—

I am directed to refer to the correspondence ending with your letter No. 227, dated 13th January 1902, and

to say that, upon a further consideration of the question, the Government of India have decided not to adopt the proposal to make Civil Hospital Assistants, when detailed for duty under the Military Department other than active service amenable to the Indian Articles.

Copy of a letter No. 358, dated 4th August 1919, from H. D. Craik, Esq. Deputy Secretary to the Government of India, Simla, to the Secretary to the Government of Bombay, General Department.

I am directed to refer to the Home Department letter No. 782, dated the 20th June 1902, in which it is stated that the Government of India had decided not to adopt the proposal to make Civil Sub-Assistant Surgeons when detailed for duty under the Army Department, other than active service amenable to the Indian Articles of War.

Doubts have been raised as to the liability to Military Law of these subordinates in view of this declaration.

2. The Government of India have accepted the necessity of gazetting Civil Sub-Assistant Surgeons as commissioned and Warrant Officers when on Military Duty and giving them the privilege and penalties of their position, and they are advised that under the provisions of the Indian Army Act, 1911 (VII of 1911) these men become subject to military law as soon as they are appointed or gazetted or draw pay as such. The orders contained in this department's letter of the 20th June 1902, have therefore no effect on their position, and may be regarded as cancelled.

3. The orders contained in this letter dispose of the points referred to the Government of India in your telegram No. 596-1, dated 22nd March 1918.

Copy of a letter No 965-12, Med.—dated 29th September 1919, from the D.D.M.S. Southern Command Poona, to the G.O.C. Poona Division.

The D.M.S. in India regrets that the question of the grant of the rank of Jarnadar to Military Sub-Assistant Surgeons of less than 5 years service and to Civil Sub-Assistant Surgeons on entering Military Service cannot be taken up until it is known whether the scheme for an Indian Medical Corps School will mature.

Reviews.

Annual Report of the Sanitary Commissioner with the Government of India for 1917.

The report is illustrated by a number of coloured graphs and tables, evidencing the great labour spent in its preparation, and embodies a special note submitted to Government summarising the experiences gained of plague in India during the last 20 years.

The births and deaths recorded during the year were 9,379,349 and 7,803,832 or 39.33 and 32.72, respectively, per thousand of the population, the mean birth and death rates of the previous quinquennium having been exceeded by .75 and 3.23 respectively. The highest birth-rates were recorded in Delhi, 52.75; Central Provinces and Berar, 48.13; United Provinces, 46.08; Punjab, 45.3; and Bihar Orissa, 40.4; and the lowest rates in Coorg, 30.51; Assam, 31.35; N. W. Frontier Province, 32.1; and Madras, 32.4. The death-rate in Ajmer-Merwara was as high as 102.96; Bombay, 40.76; the United Provinces and the Punjab, 37.91 each against their respective mean rates, 45.13, 35.09, 31.55, and 31.16. The abnormally high death rate in Ajmer-Merwara was due to the havoc played by cholera in Rajputana.

Coming to the cause of deaths, we find that cholera had 2,67,002 victims, plague, 4,37,036, 'fevers' 4,555,221 and 'all

other causes' 1,904,491. Bihar and Orissa, the United Provinces of Agra and Oudh, Madras and Bombay paid very heavy tolls to cholera, plague and 'fevers', Bengal and Assam to cholera and fevers, Ajmer-Merwara to plague and 'fevers' and the Punjab and the Central Provinces to 'fevers'. Out of 62,277 deaths due to smallpox and 2,60,981 due to dysentery and diarrhoea the Madras Presidency alone contributed 31,958 and 73,394 respectively.

From these appalling statistics of mortality from communicable and preventable diseases it is obvious that all the efforts hitherto made to improve the public health of the country have been either ineffectual or inadequate. There are of course Research Institutes and Laboratories here and there engaged in the manufacture of vaccines and antisera and in the examination of pathological fluids and discharges, water and food-stuffs, but the causes of the evil are still there, as deep-rooted as ever. What then are these causes? If, as is so repeatedly emphasized and widely accepted, the ignorance and apathy of the masses are the primary causes it is incumbent that effective steps should be taken to remove them. In January 1918 there was a conference of Sanitary Commissioners held in Delhi and the most important of the several measures advocated by them for improving the present conditions are propaganda—lantern lectures, cinema lectures and demonstrations—and the establishment of "a real public health department." We quite welcome these measures and hope that considerations of finance will not stand in the way of giving immediate effect to them. At the same time we should very much like to urge that there are other causes, lying deeper down,—the abject poverty and the consequent undernutrition and low vitality of the masses. The thousands of half-starved, half-naked, homeless beggars that swarm every city and town, the millions of petty employees and field labourers, ill-fed, ill-clad and ill-accommodated, struggling to keep their body and soul together with their paltry wages, presenting a pathetic picture of economic distress—these call for as much attention as any health propaganda that may be started.

"BLINDNESS IN INDIA AND THE POSSIBILITIES OF ITS DIMINUTION"

BY

C. G. HENDERSON, I.C.S.,

The Oxford University Press of Bombay and Madras, 12 annas.

To most of our readers in Bombay Mr. C. G. Henderson, I.C.S., must be a familiar name requiring no introduction. He is probably the solitary specimen of the Indian Civil Service whose hobby is to minimise blindness in India. At first sight our readers will be surprised to find a layman bringing out a book on such a highly technical subject as "blindness and the possibilities of its diminution", but the author does not claim to have trodden "where angels fear to tread." He has confined himself to a general investigation of the causes of blindness in this country, to a broad classification of the eye-diseases prevalent and to measures for minimising the evil. The preventive measures suggested by him, such as the detection of cases of ophthalmia neonatorum, the appointment of travelling ophthalmic surgeons, the establishment of a number of ophthalmic dispensaries and the grant of pecuniary assistance to the poorer sufferers to enable them to attend hospitals for treatment—these are perfectly reasonable and practical and commend themselves at every stage.

The work is a lucid exposition of the case of the hundreds of thousands of unfortunate human beings that are grovelling in a state of darkness and desolation, and the facts, figures and experiences marshalled up therein evidence the labours of a life devoted to a highly humanitarian cause. The foreword has been written by that renowned ophthalmologist, Lt. Col. R. H. Elliot, late Professor of Ophthalmology, Medical College, Madras. Appended to the book are (1) a long list of cases in which operations have been performed, in many cases by Sub-Assistant Surgeons, (2) a lecture on the subject of "blindness in India" delivered at the College of Ambulance, London and (3) notes on the Census figures of blindness in India.

We are confident that the book will serve as an inspiration to our brethren to do their little bit in the matter.

"RECENT ADVANCES IN THE TREATMENT OF SYPHILIS"

BY

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"The notes are well arranged and contain many useful informations. The book, I trust, will be of use to medical students and practitioners."—G. C. Murhorji, B.A., M.B., Teacher, Dacca Medical School. (23-8-07.)

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