

279

Indian Medical

Journal

Feb 1940

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The Indian



FOUNDED 1906

21 FEB 1940

Medical Journal

Organ of the All-India Medical Licentiates' Association

(With which THE AGRA MEDICAL CLUB JOURNAL is incorporated)

45-58 + Supplement

Vol. 34. No. 2

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WITH MEDICO-POLITICAL SUPPLEMENT

Annual Subscription: INDIAN Rs. 6 FOREIGN Rs. 7-8

Single Copy: Ordinary Number Annas Eight. Special Number Rupee One.

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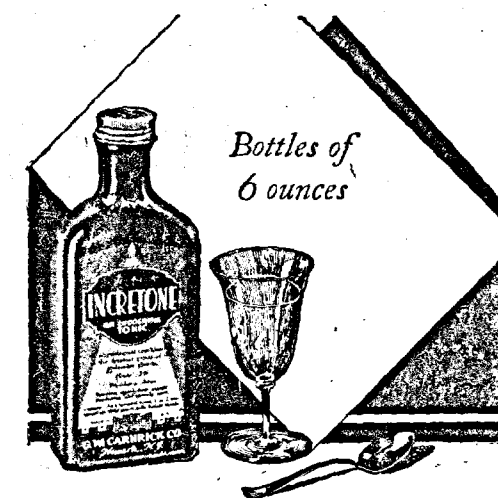
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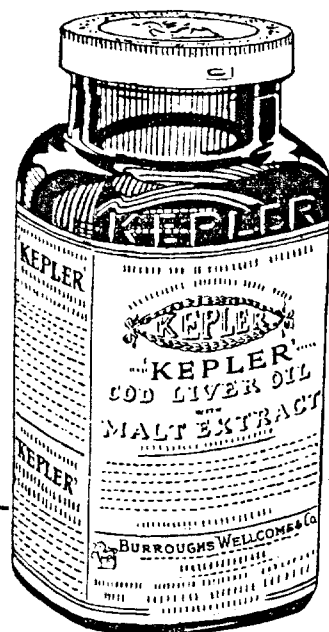


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SUPPLEMENT TO THE INDIAN MEDICAL JOURNAL

MADRAS

FEBRUARY 15, 1940

Vol. 2, No. 2

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Medical Organisations in India : Past, Present and Future

• A. Viswanathan

(2)

The Present

INTERACTION BETWEEN POLITICS AND MEDICINE

The birth of the Indian Medical Association in the year 1928 coincided in point of time and circumstances with the growing urge among the members of the profession to free themselves as early as possible from the intellectual and professional atavism into which they had fallen since the early times of the British Rule in India as a result of a hybrid type of medical education, a dividing system of medical services, and the inherent difficulty of the subject people to conceive Medicine in terms of nation's good and prosperity.

This urge first manifested itself in Bengal, the home of many great movements in the eighteenth and nineteenth centuries, and took a concrete form at the first All-India Medical Conference at Calcutta held under the inspiration of Sir Nilratan Sircar, and the auspices of the now defunct Bengal Medical Association.

The leadership of Sir Nilratan Sircar in the renaissance of Indian Medicine and the consolidation of the Indian Medical Profession is not without significance. He is the very embodiment of what is best in a medical licentiate and a medical graduate, because he has experienced what it is to be both, and how difficult it was, and is, for the barnacled licentiates and graduates in medicine to free themselves from the incubus of their own psychoses and their serfdom in the profession which was, and is their lot.

But Sir Nilratan Sircar was in advance of the times. It took nearly eleven years for him to shape the form and the future of organised medicine in

our country. The first four All-India Medical Conferences held in 1917, 1918, 1919 and 1920 at Calcutta, Delhi, Amritsar and Nagpur respectively were succeeded by a period of torpor in Medicine as well as in politics of that time. The Minto-Morley and the Montague-Chelmsford reforms gave hopes which were soon frustrated by actual experience. This period of apparent torpor was really a period of preparation. Our people in all walks of life began to cherish and cultivate a new and burning faith in themselves, and to put their trust not in British bureaucracy but in Providence and their own leaders to guide them in future.

In politics this showed itself in the demand for independence and the inherent right of our people for self-determination. The first cry of independence for India was heard in the 1928 Calcutta Session of the Indian National Congress, and confirmed next year in its Punjab Session. In Medicine, less organised than politics, this culminated in an organisation, the All-India Medical Association, now known as the Indian Medical Association, which aimed to represent the entire medical profession of India in terms of India's freedom which by implication and sequence meant freedom of the profession from the trammels of bureaucratic control, and the stultifying complex of our own slave-mentality. This was a new voice heard for the first time in the history of modern medicine in our country and this voice raised the hope in thousand breasts that if only the medical men of India could unite and organise, speak and act from

a common platform, there is nothing which Indian medicine would not achieve, and there is every possibility of equalling, or even excelling, the achievements of organised British, French or American Medicine.

THE DIFFERENCE BETWEEN THE A. I. M. L. A. AND THE I. M. A.

Thus the years 1906 and 1928 were the two milestones in history of medical organisation in our country. The circumstances which led to the formation of the All-India Medical Licentiates' Association in 1906 were entirely different from those which gave birth to the Indian Medical Association in 1928. And it was these circumstances that marked the differences between these two all-India medical associations in their composition, constitution and objectives. The first was a revolt against internal enemies, and in this struggle it sought the help of those in charge of medicines' foreign vested interests in our country. The second was a revolt against foreign domination in India's medicine, and in this struggle it sought to compose all internal differences and disunities and to inscribe the future of medicine on the canvass of Indian nationalism and in the context of India's independence.

HISTORICAL NECESSITY FOR LICENTIATES' ORGANISATION

But this should not lead to the conclusion that the All-India Medical Licentiates' Association was un-national in its attitude and work and sectarian in its interests and perspective. The former it never was, but it could not escape being the latter because, as the writer has recorded elsewhere*, "the facts would show that the licentiate was a legitimate child of medicine, but badly treated and disinherited illegally when the question of affiliation of medical schools and colleges to the Provincial Universities arose in 1857" and still later in our own times when the question of their recognition by the Indian Medical Council arose in 1933. The truth was that this much accused sectarianism was imposed on it in spite of itself, and no one individual or institution till the year 1928 came forward openly in sympathy or identification with the objects of the Licentiates' Association which always truly voiced the feelings of medical licentiates who form the prop and the bulk of the profession in our country. Even before the year 1928, and certainly more after that year, there were licentiates who had a glimpse of the vision of future medicine in our country and who boldly, if often unassisted by the more fortunate and powerful comrades in the profession, worked for its larger unity and interests. In 1924, Dr. Lohokare supported the cause of the All-India Medical Licentiates' Association in the Central Legislature against much opposition from the Treasury Benches and vested interests, and in 1925 sought to cure the ills of the licentiates by moving the first INDIAN MEDICAL COUNCIL BILL. In 1926,

*Ind. Med. Jour., Vol. 32, No. 9, Sep. '38.

the Hon'ble Dr. U. Rama Rao footed a similar bill under a slightly different caption THE INDIAN MEDICAL EDUCATION BILL in the Council of State. Both had a good reception in the country and in the profession, but was shelved by the Government of India. The erst-while official-friends of the Licentiates' Association could no more be trusted and it therefore changed its front from one of redress of grievances peculiar and exclusive to the licentiates to one of re-orientation of medical school education in such a manner as would stop the permeation of past evils into the womb of future Medicine. In 1935, two years after the abortive agitation against the Indian Medical Council Act, the Association clarified its chief objectives by stating unequivocally that its aims were: (1) "to work for the abolition of the present compartmentalism in medical education, medical services and medical registration, and (2) to urge for and to obtain statutory equality of status for the medical licentiates in respect of entry into State Service and higher appointment therein" and that it would work out these aims not by secluding itself in wounded self-respect but by "co-operating and acting in unison with other medical associations in the country whose objects are similar to those of this Association." Other events also led this Association to transfer its emphasis from the amelioration of the 'pay, prospects and promotion' of the licentiates in Service to the declaration of their fundamental rights in the profession, the demand for equal opportunities for expression and expansion and the determination to fight both its internal and external opponents of re-adjustment and reform of medical services and medical education.

CHANGING EVENTS AND CORRESPONDING CHANGES IN ITS AIMS

These events may be chronicled briefly. The Association found that its early victories were more pyrrhic than substantial, and were followed more by lip sympathy and commiseration than their translation into action. If all the grand-eloquent references to the great services of the licentiates to the King and the country by men in authority, from the Viceroys down to the administrative heads, could be compiled and studied carefully the contrast between their words and action will form one of the most unedifying chapters in the History of Medicine in our country. The Association realised this only in the second decade of this century although it kept on reminding the powers-that-be of the contradiction between honeyed words and hackneyed actions.

The second important event was that it has reached the blind end of its agitation for 'better pay, prospects and promotion' when during the third decade of this century it found to its irritation that the medical graduates who could not find a berth in the Provincial Medical Service were quite ready and willing to accept the designation and pay of sub-assistant surgeons. That this was, and is, a fact would be borne out by the following statement

made in the *Report on Hospitals and Dispensaries in the North-Western Frontier Province for 1937*:

"The Provincial cadre of Civil Sub-Assistant Surgeons consists of 102 doctors of which 50 are direct recruitment of M. B., B. S. of Lahore and two with English qualifications."

The story was the same in every province, and the last and final improvement in the 'pay, prospects and promotion' of licentiates in service could be taken to have practically ended with the year 1920 when as a result of Mantagu-Chemsford reforms the pay of every service in India, from the menial to the ministerial, was enhanced partly as a result of post-war rise in prices but mostly to profit and pamper the imperial services. The times were such that the Provincial Services could not be excluded from this advantage with impunity. The Association then thought that this gratifying rise in the emoluments of its members in service was in response to their agitation while in reality it was none of the kind. That it was the result of post-war policy and not in the least degree a response to its demands would be obvious from the fact that since 1925 the pay of the sub-assistant surgeons has been brought to the pre-war level, in some provinces to the level of the days of the East India Company, and their prospects and promotion have been dwindling in proportion to the seriousness and insistence of such demands. The Association had realised the mockery, the derision and the ridicule with which the Provincial and the Central Governments designed to meet such demands. This realisation has created an altogether new spirit among the licentiates of India who began to view the question of their position in the body-politic of the profession from a more fundamental and basic point.

The third great event was the rapid stride which medical education was making, even in our benighted country, during the second and third decades of this century. The Government was paying more attention to the medical colleges and less to the medical schools resulting in the depreciation of the alumni of the latter*. This ill-conceived policy augmented the dissatisfaction of the licentiates. Year in and year out their Association protested against such divide and rule policy, and demanded in no uncertain terms either to close down the medical schools and stop recruitment to the subordinate medical service or to bring the medical schools up to the standard required by the tremendous advances in medical education and have only a provincial medical service open to all registered medical practitioners by means of a competitive examination. What was then a hazy demand before 1933 became a manifestly irrepressible and irrefutable demand after 1933 owing to the enactment of the Indian Medical Council which stranded the bulk of the members of the profession in the NO MAN'S LAND. The Government of India convened a conference during November 1933 to consider

*Col. Sprawson: Ind. Med. Jour. No. 1, Jan. '39, Supplement, p. 1.

the problem of the medical schools, and notwithstanding the grave warnings of the writer, who represented the Association at this Conference, it came to half-hearted conclusions which were neither fish nor flesh. He said:

"I find that history is repeating itself and there is an attempt made to perpetuate licentiate education by 'Standardising' it. I say very deliberately on behalf of my Association that we do not want even a standardised licentiate medical education. Our Association stands whole-hog for University medical education I suggest to this house that the best opinion on the subject is that medical education should be under the control of the University and no other Body..... It is a strange irony of fate that a licentiate should be pleading on behalf of the University and that University people should be pleading on behalf of the medical school I warn this House that our recommendations should not be half-hearted. Because you have got medical schools you are trying to tinker with the problem of medical schools in this country. Some member has said that there is no biology course in Behar, and another has said that there is no arts college in his province. We are not at all worried about these. We are laying down a standard of medical education for this country. If some provinces have not particular courses in biology and arts it is up to the Provincial Governments to introduce them in their colleges but not to come before this House and say 'because my province has not got a biology course the standard should be minus biology.' There is yet another reason against the introduction of the licentiate standard. Sir, what is the earthly significance of having two medical qualifications for one and the same standard?..... Therefore, Sir, I would appeal to the members of this House not to consider anything about medical school education except to say that these medical schools which come up to the standard may be affiliated to the University and those which cannot immediately be affiliated should be given a reasonable time to come up to the standard."

These were the important events that led the All-India Medical Licentiates' Association to shift its emphasis from the effect to the cause. It has come to believe, and rightly so in the opinion of the writer, that unless the cause is treated the troubles of the licentiates may change in character and intensity, but would not wholly cease or be eradicated. While saying this the writer is not unaware that the Association even today wistfully longs for symptomatic relief of the homicidal wounds inflicted on the honour, dignity and status of the licentiates of India even as they are, and not as they would be after the future reorganisation of medical education and medical services in our country when the question of sympathetic and generous treatment would not arise or be needed.

ITS ORGANIZATIONAL STRENGTH

From the organizational point of view, the All-India Medical Licentiates' Association has no equal. It has near about 180 branches, far-flung in the different parts of our country, although a number of them are not as active as they should be. In times of crisis, however, all of them show energy, enthusiasm and unity of purpose and action. It has a centralised system of administration in which everyone of its branch has a voice through its representative at the annual conference. It is rich enough to live long, and is determined to live till the problem of the medical licentiates is settled one way or the other. Its income by subscription is by far the highest among the medical organisations and its official organ, the

Indian Medical Journal, commands the highest circulation and popularity among the journals conducted by medical associations in this country. It has got its own heroes, orators, politicians and workers. Some of its members are found taking an active part in the contemporary civic and political life of our country. It owns a decently endowed scientific department, but its agitational work has so consumed its time that it has very little left to devote its attention to its proper development. It also owns a Family Fund with a reserve of more than Rs. 14,000, worked on a dividing basis for the benefit of the family of its demised members, but the Insurance Act of 1938 has left its future uncertain and ambiguous. Probably it has to be dissolved unless changed into a Provident Fund on insurance principle.

THE RISE OF THE INDIAN MEDICAL ASSOCIATION AND ITS OBJECTIVES

Let us review the work and organisation of the Indian Medical Association. It has already been mentioned that the back-ground of circumstances under which it was born was different from those of the All-India Medical Licentiates' Association and that this difference has contributed to the distinctive make up of each of these two great associations. Time and events have proved that this difference is more apparent than real, more sentimental than actual and more the result of historical events than of obscurantism of medical politicians of the licentiate or the graduate brand. It was all a difference between a genus and its species. The Indian Medical Association is of the former kind: protector, spokesman and symbol of all its species. Therefore its work and organisation are intended for the benefit of all the component parts which make up the genus of the Indian medical profession today. Since its inception it always confined its objectives to the consolidation and unification of the progress of medical education and to the elucidation of medical politics from the national point of view. Fortunately, and rightly, it has consistently refused to take up the controversial claims of the service groupings in the profession, for it has realised too deeply that such service controversies are the result of a system of medical administration, and that these controversies could not be ended without ending the system of which they are but bye-products. Even according to General Giffard, the one-time Director of Indian Medical Service, such a system has no counter-part in any country as it is divided not only horizontally but also transversely and vertically resulting in unattached segments with a peculiar aura of their own. Therefore it is that this Association has determined to end this system which has proved to be an apple of discord among the diverse elements in medical, public-health, prison and military services, and partisanship with anyone of these elements even for a just purpose would have robbed it of its representative character and exposed it to the accusation of sectarian interference. Besides, the number of Indians in medical services is very much less than

those serving our country's health and medical needs through private practice*. It is the latter who count in and who could work for the regeneration of Medicine and march in line with our country's progress and final emancipation from foreign rule. Not that those in service are incapable of work of this kind but they cannot break the discipline of the Government Service-Conduct Regulations without peril to themselves. It would be foolish to ask them to make such a sacrifice, because there are others thousand times stronger in number and position who are prepared to make the necessary sacrifice for the fulfilment of the Association's objectives which are, to repeat again: *Liberation of Medicine from foreign political influences, its establishment in Indian setting and in India's interests and its untrammelled progress as an art and science.*

THE FIRST CLASH WITH THE GOVERNMENT

While thus it invited all the members of the profession to its fold it reserved the work and the sacrifice that may be called for, to be undertaken by the independent medical practitioners. The foreign Government of our country is fully aware of its objectives and while it cannot question them with propriety, views them however with entire suspicion. It is no wonder therefore that while the All-India Medical Licentiates' Association is always patted with condescending affection, which nevertheless has buttered no parsnips, the Government of India frown on the Indian Medical Association even on flimsiest grounds. In 1932 when a rule was passed by the Association requesting, but not charging, everyone of its branches to see that the Association's representatives are returned to the legislative assemblies, municipal councils and other statutory bodies, the Government at once asked their medical and public health servants to sever their connection with, which was no more than a membership in, this Association. It was a great blow against an young Association not more than four years old, and for a time it effectively checked its growth and spread. The Association had to repeal this rule not certainly out of fear of the Government but in the sole interest of its service members, and out of desire to maintain its representative character even against such odds. In spite of the repeal of this rule the Government made no response till the autonomous provincial governments came into existence by virtue of the Reform Act of 1935 when the ban was lifted, the latest being the Punjab. It is evident that the Association knows well how to bide its time, and the timely repeal of the objected rule shows the deliberate exercise of discretion in preference to vain valour. The writer knows from personal experience and knowledge that in spite of no bans existing at present, its conferences and social functions are a taboo to the British members of the Indian Medical Service. There is nothing

* There are 42,000 registered medical practitioners. Out of whom only 7000, including the I. M. S. officers, are in various services. The rest—35,000—are private medical practitioners.

however unnatural in their attitude as nobody would kiss the hand that smites a system which they would cherish for eternity if possible. As in politics so in medicine, it is a pointer of the fact that what the British die-hards dislike is manifestly in the interests of India.

ITS SYNTHETIC WORK

Notwithstanding such impediments at the beginning of its career, the Indian Medical Association grew in stature and strength, and has gained recognition as the undisputed representative of organised Medicine in our country. It gained this position by the comprehensiveness of its objectives, the national outlook in its medical politics, the abstention from Service controversies, the patient ground-work in the building of its organisation, and the correct lead it always gave to the members of the profession. More than all these causes that led to its growth in power, position and leadership is the one that it never worked in antagonism to or in proud seclusion from the existing medical organisations—regional or purely professional or the All-India Medical Licentiates' Association. It aims at absorption and not opposition, collaboration and not conflict, consolidation and not separation. Like a mother, it makes no distinction among its children albeit of their different temperaments, different wants and different stages of growth.

Today it stands to its proud record that it has absorbed almost all the important regional medical Associations. The only one which counts and yet remains to be absorbed is the All-India Medical Licentiates' Association. It has got a profound knack to bide its time.

Consistently since its very inception, the Indian Medical Association has continued to have a soft corner for the medical licentiates, and short of participation in their service grievances it has espoused their cause in no wavering mind and uncertain terms. It has availed of every possible occasion and used every means at its command to declare and confirm the legitimate position and demands of the licentiates in the body-politic of the profession. It allows the licentiates to become its full-fledged members with no kind of mental reservation, and they can rise to any position in the Association unhampered by any obstacle save the verdict of a general election. In fact, many of the secretaries of its branches are medical licentiates. They also form a majority in its membership, and in this sense the future work and destiny of the Association is entirely in their hands. It takes no action on any question affecting the licentiates without their collaboration and consent. It has set up a few committees common to both the Indian Medical Association and the All-India Medical Licentiates' Association, such as the Education and the Indian Medical Council Committees. In that fateful agitation against the Indian Medical Council Bill in 1932 conducted by the Licentiates' Association, the Indian Medical Association so completely and consistently identified itself that the Select Committee which sat to

consider the Bill admitted the strength of this agitation and conceded that even the graduates were against the exclusion of the licentiates from within its purview. The Indian Medical Association went even further by openly declaring that it was prepared to sacrifice the legitimate interests of the graduates in the necessary matter of an All-India Medical Register as a regular part of the Indian Medical Council Statute than to have one without the medical licentiates. That this agitation did not yield a proper fruit is neither the fault of the Licentiates' Association nor the Indian Medical Association, because the motif of the proposed bill was blatantly in the interest of British Medicine and the British Medical Council, and as the writer has characterised it elsewhere, it was in the nature of a political gift by the Government of India to the British Medical Council*. The record of these facts is more important and convincing than the accusation of prejudiced friends who unceasingly harp on this and that act of omission and commission on the part of the Indian Medical Association in respect of its guardianship of the medical licentiates. Never had the All-India Medical Licentiates' Association during its long existence of 34 years such a strong and willingly ally as the Indian Medical Association, and although this alliance did not bear fruit so far as governmental response was concerned, it engendered such a favourable public opinion as to end once for all the inequality between the graduates and the licentiates so far as unofficial medical life and service are concerned. This is no mean achievement or contribution. Well may this Association be proud of it in spite of its carping critics usually drawn from the die-hard section of the licentiates or graduates.

GUARDIAN OF MEDICAL MEN'S INTERESTS

Apart from its general objectives and the related work in the cause of integration of the medical profession in our country, it is also its special object to become the guardian of medical men's interests and welfare, in whatever type of activity and service they may be engaged, just as the British or the American Medical Association is. In other words, it aims, and as its work up to date has justification to claim, to be the chief representative of organised Indian Medicine. It may not be accepted as such by the present Government of India, even as it has not accepted the Indian National Congress as the sole accredited representative of our nation. But time and circumstances are on its side, and its influence and power will be felt and acknowledged by the future governments both Central and Provincial. What may be achieved in this direction and how beneficial it would be even to the material interests of the medical men can be gleaned from the successes attained in matters of this kind by medical organisations in some European countries. It would therefore both be an advantage and a duty if our medical men would look to and wish the Indian Medical Association as their friend, philosopher and

*Ind. Med. Journal, Vol. 33, No. 9, Supplement p. 157.

guide, because such a collective sanction alone can endow the Association to negotiate with the powers-that-be, and to forge necessary legislative measures for the benefit of our profession.

ADMINISTRATION OF THE INDIAN MEDICAL ASSOCIATION

Since its foundation, its branches and membership have progressed by leaps and bounds, and within the course of the next 10 or 15 years it is bound to become the greatest and widest of medical organisations in this country. It has got to-day about 100 branches spread throughout the country and a membership of about 3500. Compared to British and American Medical Associations which have got a membership strength of 45 thousand and 80 thousand respectively out of a total medical men of 62 thousand and nearly a lakh in each of those countries, that of the Indian Medical Association is indeed poor as its membership is less than a 10th of our total medical men. There are many reasons for this relatively poor strength. We are a subject nation, and this subjection is a great handicap to the natural unfoldment of any national organisation. The British Medical Association and the American Medical Association are 108 and 56 years old respectively. Whereas the Indian Medical Association is barely 12 years old, and has to reckon with both internal apathy engendered by a vicious system of medical education and medical services and external opposition from foreign vested medical interests. There were no such mighty obstacles to the British Medical Association and the American Medical Association. That the I. M. A. is slowly, steadily and successfully breaking through them is an indication of its great future.

The Central Council of the Indian Medical Association is composed of elected representatives of the Branches, and is the supreme executive body in full control of policy and programme. In the early stages it allowed the existing provincial or district medical associations to be affiliated to it on the payment of a nominal fee and of the right of a single representative to the Central Council. This ultimately paved the way for their absorption into the Association and becoming its full-fledged Branches. This method of absorption has proved to be such a success that there are very few loose medical organisations today which have not become part and parcel of the parent Body and that naturally it has given up accepting affiliation since January 1938.

The headquarters of the Association is at Calcutta, and all the important office-bearers such as the General Secretary, Editor and Treasurer are elected from that place in order to co-ordinate and concentrate on the work and management of the various departments of the Association. There is a feeling in other provinces that Calcutta is monopolising the high offices of the Association, but to break it at this stage of its growth will, in the opinion of the writer, be a setback to its efficiency. We must cease to think in provincial

terms if we want to be Indians in the true sense of the word. What we require are men with vision and vigour, with cool courage and perseverance. It is also necessary in the interest of efficiency of any organisation to keep its high command in one place, as it is in the excellent cases of the B. M. A. and the A. M. A. and till the Association is able to pay its officers, own a building and establish a permanent secretariat it is highly essential to continue the present arrangements. In any case, the principle of Headquarters Government with its staff of officers should under no circumstances be scraped off in the desire to propitiate provincial ambition. This concentration of work in one place and by an experienced set of officers has been one of the chief causes of the rapid and astounding progress during the too brief period of 12 years of the life of the Indian Medical Association.

The Central Council meets once in three months and conducts the routine business of the Association, besides endeavouring to act in the terms of the resolutions of the annual conference.

THE JOURNAL OF THE INDIAN MEDICAL ASSOCIATION

Originally this Journal was owned by Sir Nilratan Sircar who gave it as a gift to the Indian Medical Association when it was founded in 1928 under the inspiration and guidance of Sircar himself. Even today he continues to be its chief editor. It is one of the best medical journals in India and has shown a steady improvement every year. The writer is one of those, apart from his duty as a journalist, who read most of the important medical journals of the world, and he can testify that the *Journal of the Indian Medical Association* is equal to the best of its kind. There has been some criticisms from certain friends and foes alike that the *Journal* is a rot, that it does not profit its readers nor show credit to the editorial staff. This is obviously a criticism from disgruntled people. Such a kind does exist in other countries also, as would be evident from the discussions at the last Aberdeen Session of the British Medical Association where Dr. A. Macarthy (Birmingham) characterised the British Medical Journal as one fit only to be read by the retired and semi-retired practitioners, meaning thereby that it is of no use to active practitioners*. Such criticisms must be treated as humorous skits rather than as serious allegations for the simple reason that they are not based on facts. It is no doubt true that the Journal requires improvement, but there is no one best Journal in the world which has reached a stage of perfection. In fact journalism is an ever-growing plant, and can rise to infinite heights and proportions. But that depends on its circulation, its business assets, money and more money for improvement and above all the availability of contributors of the right kind. In everyone of these respects the *Journal of the Indian Medical Association* has shown a growing improvement. Such difficult things cannot be achieved in a few years

*Br. Med. Jr. Supplement, July 29, 1939, p. 64.

16th All-India Medical Conference, Lahore*

Dr. Doulat Ram's Reception Address

Ladies and Gentlemen, During the sessions of the Conference, you will be called upon to apply yourselves to many problems, professional, social and medico-political, and I would not attempt to anticipate your deliberations. There is, however, one question which is uppermost in my mind and which I cannot resist the temptation of giving expression to. I refer to the economic position of the medical profession which lies at a very low ebb, and is, indeed, getting lower every day. It is argued by some that the medical profession is not a money-making profession and that its votaries must work in a missionary spirit. These are certainly the highest ideals, but, to my mind, gone are the days of yore when the village Moulti was the giver of all wisdom, and the village Hakim was the purveyor of all health. Today, things are different, and metaphysical considerations have a very limited appeal. Economics have become the hub of life round which the ability, wisdom and honour of an individual revolve. And yet, it is in this respect that the medical profession has lost its ground. Conditions are so well known that they need not be retold; yet they are so urgent that they cannot be over-emphasized. They have been strikingly brought home to us even by outside observers like Dr. Anderson, the Secretary of the British Medical Association, and Col. Phipson, the former medical head of the Aden Colony. Is it not an irony of fate that though the problems are so chronic and serious we have so far failed to find a

*The Session commenced on 27th and ended on 29th December 1939.

(Continued from previous page)

OTHER ALL-INDIA MEDICAL ORGANISATIONS

The writer has briefly detailed in this article the state of the two All-India Medical Associations, viz., the All-India Medical Licentiates' Association and the Indian Medical Association as they are functioning today. He has also mentioned that these are the two organisations that count, the rest of them having been amalgamated to the Indian Medical Association. The other all-India Medical organisations are of the specialist type and they are: Obstetric and Gynec Association; Association of Surgeons; Ophthalmological Association, etc. They do not deal with medical politics, and are entirely professional in its scope and objectives. They are a desirable and organic growth in modern Indian Medicine.

THE LAST ARTICLE

In the next and final article, the writer would envisage the future of organised Medicine in our country. Such a planning is necessary if we want to build a stately edifice which would please the profession as well as shelter it safely.

solution? It is either that we have not hitherto sufficiently realized the gravity of the disease, or that we have not yet developed enough determination to effect a cure, or that we have not so far discovered the right remedy. If the delegates from the different corners of India, assembled here, in their collective wisdom and combined resolve, succeed in showing the way to the profession out of this gloom, the Lahore Conference will have made great history. To me, the panacea of all our ills lies probably in the introduction of the panel system of practice such as it exists in most of the Western countries.

There are other important questions, too, like the uniformity of medical education, public health, rural medical relief, indigenous systems of medicine, medical preparedness in the emergency of war, etc., etc., which still await solution. These will, certainly, loom large in your deliberations, and I do not propose to burden you with my views at this stage. I would only advise that mere paper resolutions will not carry us a step further. *Words will have to be backed by action before any result is achieved and whatever resolutions we pass at a conference must become our war-ory during the year.* Here, I would like to refer to a matter of very deep gratification to the entire medical profession in the country that for the first time we have as the President of the Indian Medical Council, one of our colleagues of the independent profession, and also a leader of great eminence, Dr. Bidhan Chandra Roy. We hope that under his able guidance and stewardship the profession will achieve that efficiency at home and that honour abroad which was promised to us at the inauguration of the Council.

Ladies and Gentlemen, These annual conferences have become important milestones in the growth and development of the Indian Medical Association under whose auspices they are held every year. It is true that the Association has not yet achieved anything momentous or tangible in the various fields of its activities, but, let it be remembered, that institutions, like individuals, have also their periods of childhood. This period is essentially one of growth and evolution, and, from that point of view, the Association presents a record of which any child should feel proud. Whatever fraternity and fellowship we see in the profession today is all due to the efforts and labour of the Indian Medical Association. In this connection, I am glad to be able to say that the Punjab, in general, and the Lahore Branch, in particular, has always been in the forefront of its activities. It is the Punjab alone of all the provinces that has held nine annual provincial medical conferences. In this respect, it beats even Bengal which is the home of the Association. Again, it is the Punjab which has got the largest number of branches except only the United Provinces. Before judging the work of the Association, let it also be remembered that an Association is nothing but a collection of men and women joined together for a common purpose. It is like a biological entity—the more strength its individual units put into it, the stronger it

becomes. There is still a great apathy on the part of medical practitioners to join the Association, and this is well reflected in the fact that, out of about 42,000 practitioners in the country, the Association claims only about 3,500 as its members. The Indian Medical Association must become the banner under which every medical man and woman, of whatever caste, creed, or colour, must muster. Then and then alone, it can become a virile body with that power which commands and that strength which conquers. I long for the day when such a Conference as this will be designated not as the All-India Medical Conference but as "The Conference of the Indian Medical Association."

Ladies and Gentlemen, I do not wish to pursue the usual practice of a long speech. Originally, I intended to follow in the footsteps of the late Doctor Ansari of revered memory whose whole speech, as Chairman of the Reception Committee of the XII All-India Medical Conference held at Delhi in 1935, consisted of a few words of welcome only and nothing else. Such a brevity from a lesser man like myself would perhaps savour of rudeness. At the same time, I do not want to stand longer between you and the President. I, therefore, close by welcoming you once again in our midst. The city of Lahore is a fast developing town, and bids fair to rank with the presidency towns of Calcutta, Bombay and Madras. While it has its attractions, it has also its distractions, not the least being its severe December winter. We have tried to make arrangements for your stay as comfortable as we could, but it is possible that there may be shortcomings, or that we may not have been able to meet all the requirements of the delegates from different climes. On behalf of the Reception Committee, I beg to crave your indulgence.

Dr. Bhupal Singh's Presidential Address

I highly appreciate the honour you have done me by electing me to preside over this conference—the highest honour the profession could bestow on any individual. I have accepted the responsibilities of this office as I feel certain of your kind help and co-operation which alone would enable me to guide the deliberations of this conference successfully.

Ladies and gentlemen, we are meeting under very special circumstances when the whole world is in the grip of a great war. Wars always mean such a severe strain on our profession. Maimed and mutilated humanity cries for help and our profession has to be prepared for the ungrudging service of afflicted humanity without any distinction as to friend or foe. I have no doubt the profession in India will give a good account of itself. Aerial attacks, which are a special feature of modern warfare, have introduced new problems and our duties lie not only with the troops in the battle-fields but also with the civil population even at great distances from the actual seat of war. It becomes incumbent on us to train ourselves up in A. R. P. measures so that we may be able to give intelligent help when emergency arises. You may

be aware that the I. M. A. has published two pamphlets on the subject:—

(1) The treatment and prevention of poison gas for the use of medical men.

(2) Air Raid Precautions—household guide for the public.

These give lot of useful information, but they have to be supplemented by arrangements for practical training. Karachi, Bombay, Madras and Calcutta have moved in this matter but as the danger hangs over the whole of India the other provinces should also make arrangements for A. R. P. training. The I. M. A. should also take up its share of the responsibility and draw up a practical scheme of training in A. R. P. measures for medical men and open centres in the various provinces.

As regards service with the troops, I understand that the Government is preparing a scheme of emergency military service for the I. M. S. and the I. M. D. grades. I only hope the conditions will be reasonably inviting and no invidious distinction will be introduced between the permanent and the emergency officers as regards their status and emoluments. A liberal gratuity should be fixed for emergency officers at the termination of their services to make recruitment popular.

Now to come to the various problems of the profession. These have been very ably dealt with by my predecessors year after year and I dare say our problems are not very different from those even today. I shall go over some of them as briefly as I can.

Medical Education

As we all know there are two grades of medical education current in India:—

(1) The University education imparted by the medical colleges affiliated to the various Universities, requiring Intermediate in Science with Biology as pre-medical qualification and a five years' course of training, at the end of which the M. B., B. S. degree is conferred on those who qualify.

(2) The school education imparted by the medical schools under the control of the State Medical Faculties in various provinces requiring matriculation as the pre-medical qualification and a four years' course, at the end of which the diploma known as L. S. M. F. is conferred on those who qualify.

The result has been that in the Medical Profession in India two classes of medical men have grown up—the Graduates and the Licentiate—with their respective superiority and inferiority complexes fostering class dissensions in our body politic. The evil was early recognised by the leaders of the profession and a persistent effort was made to induce the Government to establish one uniform standard of medical education in the whole of India by raising the school education to the standard of college education. The I. M. A. as well, as we all know, took an important part in this by persistently supporting the Licentiate in this just demand of theirs. But the Government could not be induced to agree to this urgently needed reform for reasons of their own. But when the Congress took up the reins of Govern-

ment in so many Provinces under the new reforms the angle of vision of the Government showed a change. The Hon'ble Dr. Rajan, Ex-Minister of Health, Madras, was the first to initiate the reform by abolishing school education and establishing one uniform standard of medical education—the M. B., B. S. degree—in the whole of the Madras Presidency. The profession cannot be too thankful to him. Soon after, a Conference of Health Ministers of the Congress Provinces was called in Madras and the principle of establishing one uniform standard of medical education was accepted by the Government of the various Congress Provinces. The United Provinces also decided to raise the Agra Medical School to the status of a University College, thanks to the Hon'ble Mrs. Vijay Lakshmi Pandit, Ex-Minister of Health U. P. The other Congress Provinces would have, it was hoped, come abreast in the matter of this reform, but the unfortunate ministerial crisis has upset all our calculations. It is very difficult to say how things will shape themselves now. One can only hope for the best.

Post Graduate Education

It is a great pity that there is no arrangement for post-graduate education anywhere in the whole of India except perhaps D. T. M. course of the Tropical School of Medicine, Calcutta, the D. P. H. of the All-India Institute of Hygiene and Public Health, Calcutta and the L. O. course at the Madras Medical College. The only way open to persons qualifying from the medical institutions in India who want to specialise in any subject is to go out of India to England or other foreign countries. The expense involved is enormous and even prohibitive in the case of the majority of these persons, and so a large number of medical men have to be satisfied with general practice for want of arrangement for post graduate education in India.

Ladies and gentlemen, these are days of specialisation and it is high time that post-graduate courses in various subjects should be established in India. The various Universities may, on the principle of division of labour, take up one or two special subjects and make special arrangements for their teaching and practical training in the medical colleges affiliated to them. This will automatically raise the tone of teaching of our medical institutions and consequently that of the medical profession in India. The establishment of a post-graduate college in a central place like Delhi may also be a very desirable proposition.

While on the question of teaching institutions, I may be allowed to say a few words about the selection of suitable teachers for our teaching medical institutions. It is an admitted fact that the selection has not always been on the principle of merit. Vested interests of various services have been allowed to dominate the question of selection of teachers. Since the introduction of the Reforms certain important teaching posts in the various medical colleges under the Government have been

reserved for British specialists belonging to the I. M. S. There is no justification possible for their appointment except perhaps provision of fat posts with lucrative practice for British members of the I. M. S. This cannot be condemned too strongly.

Another point which I would like to stress in connection with teaching appointments is that teachers should be wholly devoted to teaching work and the temptations of engaging in private practice should not be allowed to distract their minds. I am convinced that this will raise the tone of teaching in our teaching institutions.

Medical Research

Medical research in India has been the special preserve of the Indian Medical Service. Indians have been practically kept out of it except in the capacity of assistants and it is no wonder that Indian medical men have so little research to their credit. Besides, dissociation of research from teaching institutions has been another serious handicap. Post-graduate teaching and research should be associated more intimately for the benefit of both and all teaching institutions should be made centres of research by providing research scholarships to capable and ambitious young men prepared to devote themselves to research. I would invite the attention of the Indian Research Fund Association to this aspect of the question.

Provision of Medical Aid

It has to be admitted that the provision of medical aid is wholly inadequate in India. It is practically absent as far as rural areas are concerned. There are hospitals and dispensaries established by the Government in urban areas but they are, as a rule, ill-equipped and understaffed. There is no wonder that they do not inspire confidence in the public in spite of the best efforts of the medical officers in charge. The management of the hospitals has been kept too much in official hands and the public has not been associated with it. The result is that public response in the shape of monetary help is meagre indeed. Besides, the administration is too heavy and a lion's share of the Government grant is swallowed up by the pay of the staff and very little is left for medicines and equipment. In order to make the hospitals more efficient and more popular the system of management should be changed and the hospitals should be put under hospital committees representative of the local public. The professional work of the hospitals should be entrusted to honorary agency as far as possible by associating independent practitioners as honorary physicians and surgeons. The independent medical profession has, during the last decade, grown considerably in quantity as well as quality and will, I am sure, be equal to taking charge of the work with credit and it is high time that it should be associated with work in these hospitals. The conditions of honorary system of work, however, have to be revised to make them more honourable to

induce independent practitioners to come forward to take up the responsibility.

While on the subject of provision of medical aid to the public, I would like to mention certain schemes which could supplement the hospital system and bring medical aid within the means of the middle classes who are neither deserving of free medical aid in hospitals nor are rich enough to afford efficient medical aid at home. Schemes of National Health Insurance and Public Medical Service have been coming before the I. M. A. for sometime but they have not been taken up in right earnest. It is time that the profession considered these schemes with a view to introduce them even as an experimental measure in a few places.

Coming to the question of providing medical aid to the rural areas the task is stupendous. People in villages have begun to appreciate the modern scientific system of medicine and try to avail themselves of it whenever it is within their reach and competence. The spectacle of severe cases like pneumonia, being brought from distant villages to cities and back again must be familiar to all practitioners. That a large number of curable cases die for want of proper medical aid is a common occurrence. A net-work of rural dispensaries of the modern scientific system should be established, each dispensary catering to the medical needs of the village population within a certain radius, say 5 miles, depending on the density of population in that area. A small cess on the families who can afford to pay may be levied for the running expenses of such dispensaries. A practical scheme could be drawn up and put before the various Provincial Governments for their consideration.

Public Health Organisation

In spite of all the efforts of the Government in connection with Public Health, the fact remains that the public in India is at the sweet mercy of diseases which in advanced countries are being brought under control. The problem of malaria which is causing so much havoc remains unsolved. It cannot be denied that the scourge has enormously increased since the expansion of railways and canals which have disturbed the natural drainage of the country. Cholera takes its large toll every year. Tuberculosis is steadily on the increase and is the cause of unspeakable misery and death. Small-pox continues to do havoc. The problem of epidemics has to be grappled with in right earnest. The health department is in urgent need of great expansion and the money so spent will be sound investment from the point of view of national health. Much has to be done by the government but the medical profession has also to shoulder the responsibility of educating the public in health subjects and thus producing a health sense in the public.

Ayurvedic and Unani Systems of Medicines

I may be allowed to say a few words about the Ayurvedic and Unani systems of

medicine, though I feel I am treading on delicate ground. These were the only systems in vogue in India before the advent of the British and have been holding their own in spite of complete absence of State patronage. That they have had their days cannot be denied. That they could not have been purely empirical but must have been based on scientific truths arrived at after scientific experiments and research is also most probable. But it has to be admitted that, for want of State patronage and encouragement, these systems have not only not advanced beyond a certain stage but have actually deteriorated while the modern system has advanced by leaps and bounds. If they have had the opportunity I have no doubt that they would have advanced on the same lines as the modern scientific system and then there would have been no difference of kind between these old systems and the modern system. Efforts have been made during the last decade or two to modernise these systems, for instance at the 'Tibbia College' at Delhi and the 'Ayurvedic College' at the Benares Hindu University, by introducing a study of the basic sciences such as Anatomy and Physiology, in the Ayurvedic and Unani teaching institutions and by providing hospital facilities for practical training of the students; but I am sorry to note that proper stress has not been laid on maintaining standards. This is bound to react unfavourably on these systems themselves. Our attitude towards these systems is one of friendliness. Many of the drugs of these systems reputed to be useful in certain diseases are being put through scientific examination to be utilised if they stand the test of modern methods of experiment and research. Researches on pharmacology on these lines have been carried out in the 'School of Tropical Medicine' at Calcutta by General Chopra and have resulted in lot of useful additions to our knowledge.

The Indian Medical Service

The Indian Medical Service was originally a military service for looking after the Indian Army in times of peace and war. But by and by it was employed to look after the medical needs of the civil officers and the civil population and had charge of public health and medical education also, being the only agency of the modern system available. We must acknowledge the great service rendered by the I. M. S. in those days. But as the medical profession in India grew up and claimed its due share of the opportunities of civil appointments in the state it came into clash with the vested interests of the service. Naturally it was reluctant to give up the monopoly of the higher appointments on the civil side which it had secured. The civil side of the service was justified on the plea of providing military reserve. But this theory was exploded in the last war when a very large number of civil doctors had to be recruited to supply the war-time demand of the army, the number of I. M. S. officers released from the civil side being insignificant. After the Great War the system of Army

Reserve of Officers (Medical) was introduced and this should efficiently replace the civil side of the I. M. S. as far as the demand for military service is concerned.

After the introduction of the reforms the Secretary of State for India has, under section 246 (i) of the Government of India Act of 1935, which gives him wide powers to deal with the right and privileges of the I. M. S., issued Resolution No. 205 of 25-3-37 (Defence Department). Under this resolution the civil side of the I. M. S. has been firmly established on the ostensible plea of providing War Reserve and providing medical attendance on British Civil Officers and their families by British doctors. Both these arguments do not stand a moment's scrutiny. But the fact remains that the Secretary of State has utilised his powers well to entrench the I. M. S. securely in the Civil departments of the state. The most objectionable feature of the scheme is the introduction of racial discrimination between the British and the Indian personnel of the service as regards the method of recruitment, the right of transfer to civil side and even the scale of pay. The last has been done very cleverly by reducing the basic pay and increasing the overseas allowance which has the effect of lowering the pay of Indian Officers and increasing the pay of British Officers compared with the old scale. Another most seriously objectionable feature of the scheme is the provision of British specialists in the main subjects of surgery, medicine and obstetrics as teachers in the various medical colleges of the country as this introduces racial discrimination even in the educational institutions where it is most undesirable. Besides all the important towns in the various provinces have been reserved for British Civil Surgeons. And all this has been done on the eve of Provincial Autonomy!

Ladies and Gentleman, we have from this platform cried hoarse that the civil side of the Indian Medical Service is an anachronism and should be abolished and that recruitment to the service should be through the door of open competition but it has been like crying in the wilderness. As a matter of fact conditions have been made distinctly worse. These wrongs can only be remedied when real political power passes into the hands of our people. This takes us into the field of politics and is best left to our political savants to deal with.

I would like to make it quite clear, however, that my criticism is directed against the system and not against individual officers of the I. M. S. among whom I can count some very good friends both Indian and European for whom I have the greatest regard.

The Indian Medical Council

Those who know the history of the creation of the Indian Medical Council will remember that it was established to placate the General Medical Council of Great Britain in the teeth of opposition by the profession in India. The constitution of the Council was such that it was

practically an official body. It concerned itself not with the whole of medical education in India but only with the university education imparted at the medical colleges. It wanted to have a register from which it proposed to exclude the Licentiates, who already enjoy the privileges of being on the Provincial Registers. But as the profession stood as one man against this injustice it decided to forego the luxury of a register. There has been a continuous agitation in the profession demanding an amendment of the Indian Medical Council Act to secure increased representation for the independent profession, to include the school education within its purview so that it could be mended or ended and to bring the existing Licentiates on the register but without success.

Ladies and gentlemen, things now appear distinctly more hopeful. Our respected leader Dr. Bidhan Chandra Roy has been unanimously elected President of the Indian Medical Council and we can confidently hope for better times under his able guidance. I would take this opportunity of congratulating Dr. Bidhan Chandra Roy on the honour which he so well deserved.

Unemployment Among Medical Men

That there is unemployment among medical men has to be admitted. But when I look into the question closely I cannot help but come to the conclusion that the problem is really one of defective distribution of available medical men. Medical men are generally crowding in large towns while smaller towns and rural areas are in bad need of them. Every young man when he qualifies tries to settle down in large towns, and quite naturally too, because he has been brought up in such a way that he finds life in big towns more congenial. And then every young man is naturally ambitious and he finds there is no scope for his rising up in the profession in small towns and rural areas. Some of these who have extra brains get a footing and ultimately rise. But many of them who are not so gifted find that they cannot make the two ends meet and lose confidence in themselves and form the bulk of the unemployed. On the other hand many young men, who have settled in small towns straight away, have succeeded well. The problem of settling down in rural areas is still more difficult. The Government in many provinces have tried to subsidise practitioners to induce them to settle in rural areas but these schemes have not been very successful. The problem of rural medical relief can only be solved by the establishment of rural dispensaries which will at the same time solve the problem of unemployment among medical men. The public health department also stands in urgent need of expansion and will help to relieve unemployment.

Drug Industry

We have to admit to our shame how we depend on foreign countries for important drugs and medical and surgical supplies. This was brought home to us in the last war and the manufacture

of many drugs and preparations was stimulated. But we were lulled into sleep after the war and the markets were again flooded with foreign manufactures. The war has begun again and the problem is before us in a more acute form. Many drugs to which we have got used are difficult to get. It is a great opportunity for enterprising firms to come to the help of the country. An All-India planning is urgently required to go into the whole question as to how to make India independent of foreign countries in the matter of drugs and medical and surgical appliances. The profession has a great responsibility in this respect. An influential committee should be formed by the I. M. A. to devise ways and means for making India self-sufficient in the matter of drugs and medical and surgical appliances. Let us hope good comes out of evil and India is able to stand on its own legs as a result of the stimulus provided by the War.

The Indian Medical Association

Before I close I would like to say a few words about the Indian Medical Association. The I.M.A. is the only organisation in India which provides a common platform for all classes of medical men on terms of complete equality. It was started in 1928 with a small membership and just existed for the first few years of its life, but since the year 1933 it has shown real signs of life and during these last 5 or 6 years it has grown very much in stature and importance, thanks to the untiring efforts of our Hony. General Secretary, Dr. K. S. Ray who has been carefully nursing it from its infancy. We can now count as many as 117 branches within its fold, distributed all over India, and the total membership has reached nearly 3500—consisting of all classes of medical men—graduates and the licentiates, Service men and the independent practitioners. Besides it has a few important medical associations as affiliated bodies which, I hope, will soon be converted into branches. But much has to be accomplished still. The I.M.A. being the only organisation which can safeguard the interest of the medical profession in India deserves the support of every member of the profession. How I wish the I. M. A. was the one medical organization in India wielding the same influence and power as the B. M. A. in England. I shall earnestly appeal to every professional brother and sister in India to make it a point to join the I. M. A. The Governments in the various provinces have allowed their medical officers to freely join the I. M. A. and their attitude towards it is one of friendliness. You will be pleased to know that in U. P. the I. M. A. has been given recognition as an advisory body to the Government to be consulted in all matters concerning medical aid and public health, thanks again to the Hon'ble Mrs. Vijay Lakshmi Pandit, the Ex-Minister of Health U. P. I feel confident that the other provinces will extend similar recognition in due course and that the I. M. A. will prove itself deserving of the honour and equal to the responsibility put upon it.

Ladies and gentlemen, now that we are growing in numbers and importance we should beware of dissensions in our ranks which are, one has to admit with shame, the curse of all organisations in our country, and should be guarded against. The main stay of all democratic institutions is discipline—self-imposed discipline—without which no organisation can function and flourish. Allow me to stress the need for discipline with all the force at my command. I would just put before you the constitution of the I. M. A. We have the local branches which are the units and are autonomous to a great extent in their internal management. They send representatives according to their numbers to the Central Council in which rightly vest all the powers. It is the governing body of the Association. It derives its power from the branches through their representatives. The decisions of the central council are thus the decisions of the branches. The only sanction it possesses for enforcing its decisions is the sense of discipline of the branches. Its decisions at times may not be in accordance with the wishes of a particular branch but since the decisions are taken by a majority of votes of the representatives of all the branches discipline requires that they should be implicitly obeyed. I would make an earnest appeal to you to consider this point and keep guard against disruptive tendencies so that the evil may be nipped in the bud.

Correspondence

Robertson Medical School, Nagpur

Referring to the *Current Comments* under the caption "Robertson Medical School" on page 388 of the *Journal* for December 1939, I may point out that:

(1) According to the resolutions of the Conference on the Medical School education held in New Delhi in November 1938 the standards of equipment and training in medical schools are to be raised to those required for recognition by the Medical Council of India. The proceedings of the Conference in question are under the consideration of the C. P. Government and final decision may be taken when the opinion of the C. P. Medical Examination Board is available after its meeting to be held in April 1940.

(2) The course at the Robertson Medical school, Nagpur which is at present for 4 years has not yet been changed. Under the present rules the minimum qualification required of candidates for admission to the Robertson Medical School, Nagpur, is matriculation and the selection is made from amongst the candidates who have passed B. A., B. Sc., and I. Sc examinations and in respect of others in order of merit on the results of the competitive entrance examination.

(3) From the above it will be seen that the comments are misrepresentation of facts and require to be corrected. Will you therefore kindly have it done in the next issue of the *Journal*?

M. JATAI
Lt.-Colonel, I. M. S.,
Inspector-General of Civil Hospitals
C. P. and Berar.

[We are relieved to note that the information on which our comments were based was wrong, and we thank the Inspector-General of Civil Hospitals, C. P. and Berar, for his prompt correction. We do hope that he would use his good office in making the standard of medical education at the Robertson Medical School conform to the minimum required by the Indian Medical Council, and set his face strongly against half-hearted measures. Ed., I. M. J.]

Family Fund of the A. I. M. L. A

I have read with much interest the two letters published in the November and December 1939 issues of the *Journal* regarding our Family Fund affairs. I think many members are not satisfied with what they might have read in these letters. I wonder why Dr. Sesha Rao had chosen to reply to Dr. Sha's, instead of the Secretary of the Family Fund. Is it because of the Fund ceasing to work since 1-7-39 that the Secretary had ceased to correspond? After reading Dr. Sha's letter, I wrote to the Secretary regarding certain points raised in his letter, but I could not get any response.

Regarding Dr. Sesha Rao's letter I would like to point out the following:—

(1) I have not received any information regarding the fact that the Fund has ceased to function since 1-7-39. Nor did I get any information regarding Annual General body meeting or its proceedings from any source. Strangely enough, however, I had been getting my call notice till 15th April 1939 (Call No. 193).

(2) Since it is now evident from Dr. Sha's letter that the Fund had ceased to work from 1st July 1939, may I know how many months more do the Working Committee require to inform the members officially of the same? I think any further delay is unfair.

(3) Why has Dr. Sesha Rao failed to answer Dr. Sha's question as to how he was appointed as the Joint Secretary before joining the Fund? What is the responsibility of the Working Committee in this matter as well as in the revelations made by Dr. Sha?

Since writing this letter I have received a copy of the Family Fund Secretary's letter to the General Secretary of the Association stating that the members will be intimated very soon. Let us now wait and see when that time comes.

10-1-40,
Tinsukia, Assam.

S. C. BAROOAH,
Member, Family Fund.

I have gone through Dr. U. Sesha Rao's letter in the December issue of the *Journal*. Apparently he is at pains to present in alluring colours the prospects of the new insurance scheme. He also wants our up-country members to be reassured that everything that has been done about the future of our Fund was for their good and that the method and procedure for doing so were above reproach.

I once more want to make it clear that I write this in my individual capacity as a member of the Fund and not as its president or manager.

Before replying to Dr. Sesha Rao's letter, I cannot refrain from saying that he should have left this self-imposed task to some other member. He knows that I have questioned the propriety and legality of his own admission as a member before he had made the requisite payment under rules in order to qualify as a member. He was not even duly admitted as a member by a resolution of the Board of Directors at the time of the said meeting. I have also protested against his voting at the General Body Meeting as also his subsequent election to the Working Committee. The Management has so far failed to satisfy me on these points. The Board of Directors before whom the matter has gone have still to pronounce their decision on the points raised by me.

Dr. Sesha Rao is kind enough to assume that I have "misunderstood the whole subject" and has tried to pick holes in my statements as published in your November issue to which Dr. Sesha Rao's letter is a reply.

I would first refer to the so-called General Meeting of the Fund held on 14th May last, of which so much capital is being made. The meeting was attended by seven persons in all of whom, in my opinion, Dr. U. S. Rao and Dr. Daruwala were not duly enrolled members.

This General Body Meeting of five or seven members (all told) cannot, in my opinion, reflect the opinions of about 327 members scattered all over India.

My objections regarding the convening of the G. B. Meeting, posting of notices regarding the 'proceedings' and the procedure followed are as under:—

(1) The meeting was called under a notice which contained *inter alia* item No. 3 relating to the report of the actuary. Such special items are usually kept for special extraordinary meetings.

They should not be included in the Agenda for an Annual General Meeting. The latter should concern itself only in passing of Accounts and the annual report, electing office-bearers and appointing auditors.

(2) Even so, the notice of the meeting does not appear to have been posted to all the members of the Fund as has been complained of by about 34 members from the different ten provinces of India who took the trouble to write to me in connection with my letter in November Issue of the *Indian Medical Journal* which I published for the information of our members. If these notices were duly posted—as they ought to be—it is evident that the work of posting has been done most perfunctorily.

(3) In the printed copy of the 28th Annual Report of the meeting the "Special Notice" printed on page 3, purporting to hold an adjourned meeting after only one hour's interval, on the same day if there was no quorum, was inserted by the Secretary on his own authority though said to be under my signature. I had signed the draft notice for the original meeting alone. The use of my signature therefore in the "Special Notice" for the adjourned meeting was, I am sorry to say, unauthorised and without my knowledge even, till I attended the meeting on the 14th May last. Then I saw for the first time the printed notices tacked to the printed Report and Accounts as prepared by our Indore Directors. I at once questioned the propriety of such a procedure but no satisfactory explanation was even attempted. I am now conscious that I ought not to have allowed things to proceed in the manner in which they subsequently appeared to me to be shaping to my dismay. I plead guilty of weakly acquiescing in this and many other irregularities and it was solely with a view to avoid disharmony.

(4) Why the Working Committee should have thought fit to bring in an actuary at all at that initial stage passes my understanding. The Insurance Act had not then come into force. Even when passed, we should have obtained only a lawyer's opinion, whether the Fund could come under section 69 of the impending Act as being one conducted on "dividing principle". Actuarial assistance was perfectly valueless to determine this legal technicality. Even if the Fund was to be wound up, no actuarial assistance was needed in that case also, as rule No. 36 of the Constitution of the Fund provided for such a contingency. It will thus be apparent that even when the idea of bringing in an actuary was mooted, the point behind it could not be anything else except conversion to an insurance scheme.

(5) The sanction of the superintendent of insurance if it was necessary in view of the legal opinion, could also have been obtained without sending him a copy of the first portion of the Actuary's incomplete report, the same being printed in one night and not shown to the Board even though asked. The forwarding of this copy has not been mentioned in the covering letter, and the Secretary had to admit this at a meeting when I questioned him on the point. If under these circumstances, I or any other member were to construe this as an attempt to create prejudice in favour of a reorganisation scheme on insurance lines none can be blamed for the same.

(6) The Secretary used to take rough notes of all the proceedings at a meeting. He took the same as usual for this general meeting also. When the minutes came for confirmation at the following meeting, I was under the impression that a portion of the fair minutes was not identical with the original notes as initialled by me. On demanding to see the latter, I was informed that the same was not preserved but would be kept in tact hereafter. I had again no other course but to let the matter drop.

These were, in my opinion, glaring defects and in their cumulative effect they could only be construed as a determined move to drag members unwarily to an insurance scheme.

It is against the method of shaping important issues according to preconceived plans, even without an attempt at a discussion, that I have been obliged to protest.

The facts that an actuary was brought on the scene, and his incomplete report favouring reorganisation was forwarded to the Insurance Superintendent along with the letter requesting his sanction for the Fund to function, were in themselves sure indications as to the way the wind was blowing. Letters and telegrams from Indore Directors protesting against any reorganization scheme were not replied to for weeks. No wonder therefore the Indore Members and Directors made known their protest to the Insurance Superintendent in order that ex-parte attempts to win him over to the insurance idea may not be given undue weight. Even if their action appears to Dr. Sesha Rao to be "hasty action", surely they had strong grounds and even provocation for the same.

Dr. Sesha Rao now writes that steps are being taken to obtain legal opinion. He also writes that after receipt of the same the members of the General body would be given an opportunity for giving their individual opinions. So far so good.

But may I ask when and after how many protests from me against keeping members in the dark that this

wisdom has dawned on him? Is it not a fact that I had suggested to circularise all facts to members so early as on 3-8-39 and 26-8-39? I had even put in a draft circular for the consideration of the Working Committee, but the same was not given a chance of being discussed. It was only after repeated protests from me and also after the so called "hasty step" on the part of Indore Directors to file their protest with the Insurance Superintendent against reorganizing the Fund that Dr. Sesha Rao and his friends thought it prudent to be more reasonable.

As for my "misunderstanding of the subject" and "putting the cart before the horse" I leave your readers to judge for themselves.

I do not propose to comment further on Dr. Sesha Rao's observations regarding the suggested insurance scheme which, as stated in my previous communication, is doomed to failure, owing to heavy running expenses without the least possibility of a corresponding income. If necessary, I shall take up the subject in a future communication.

But before concluding I cannot refrain from touching a very important point raised by Dr. Sesha Rao in his communication. He asserts: "Even taking for granted that the Working Committee was authorised by the General Body of the Family Fund to reconstitute the same on lines of Provident Insurance Company, still Working Committee cannot have the power to utilize the reserve fund for the working of the new scheme". I am glad to have this assurance. May I ask, why all this bother, if it be really so? If the reserve fund is to be for the benefit of the present members of the Fund only, why not wind it up if it cannot be continued under the Act and distribute the assets to the contributing members as provided in Rule 36? Why tack the Fund to any insurance scheme whatsoever? Can the latter not be brought into being quite independently of this Fund? If the reply is in affirmative, wisdom lies in taking that course.

I beg to be excused for allowing my letter to run to this length, but the importance of issues raised demanded the same.

A. G. SHAH.

26-12-39. A Member of the Family Fund, Bombay.

U. B. Narayan Rao, Secretary, Family Fund
-101, Girgaum Road, Bombay 4. writes:

The addresses of the following members of the Family Fund are not known. Secretaries of the Branches, or the members themselves are kindly requested to communicate to me the correct addresses of:

1. Dr. A. D. Joseph, Pwinbyu (Minbu Dt.), Burma.
2. Dr. Mazroli, Govt. House, Maymyo (Burma).
3. Dr. M. N. Gurjar, Manipur (Holkar State).
4. Dr. B. C. Patwari, S. A. S., Assam Medical Service, P. O. Sairang, Lushai Hills, (Assam).
5. Dr. G. K. Barooah, Medical Practitioner, Nowgog (Assam).
6. Dr. Shyama Singh Chotey Singh, Indore.

SERVICE NOTES

[As per Resolution No. 18 of Gauhati Conference, A. I. M. L. A., we are publishing below only the transfer and leave of such of the Sub-Assistant Surgeons in each province who are members of the Association. The numbers given against their names indicate their membership roll numbers—Ed. I. M. J.]

U. P.—August to November 1939

- 3090 Dr. Mohammad Ismail Khan, Camp Jail, Sitapur to Bari Dispy.
- 2536 „ Shiva Kumar Dwivedi, Reserve Duty, Banda to U. H. M. Hospital, Cawnpore.
- 2821 „ Ram Narain Saxena, Bikapur, Fyzabad to leave 1 month on average pay from 31-7-39 to 31-8-39.
- 1584 „ Deoki Nandan Pant, Dist. Jail Hospital Bareilly to Madhotanda, Pilibhit.
- 2639 „ Ambika Prasad Dube, from leave to Reserve duty, Benares.
- 511 „ Sheo Narain Saxena, Jail & Police, Ballia to leave 1 month from 14-8-39 to 13-9-39.
- 475 „ R. D. Pandya, Medical School, Agra, to leave five months from 19-8-39 to 18-1-40.
- 33 „ Gopal Swaroop Bhatnagar, Rasra Dispy., Ballia to leave on average pay for 36 days from 19-9-39 to 25-10-39.
- 1675 „ Kameshwar Nath Johri, Puranpur Dispy., Pilibhit, to leave 15 days from 14-8-39 to 30-8-39.
- 446 „ Ram Chandra Singh Nagina Dispy., Bijnor to Powayan, Shahjahanpur.
- 2639 „ Ambika Prasad Dube, Reserve Duty, Benares to Jail & Police, Jaunpur.
- 630 „ Azizul Hamid, Hasanpur Dispy., Unao, to leave 4 months on a. p. from 15-11-39 to 14-3-40.
- 1595 „ R. N. Mehrotra, Dist. Jail, Lucknow, to leave 2 months on a. p. from 8-11-39 to 7-1-40.
- 397 „ Rikhab Chand, Jail & Police, Unao to Jail & Police, Bulandshahr.
- 43 „ Madan Gopal Bhatnagar, Amroha Dispy., to leave 15 days on a. p. from 26-11-39 to 10-12-39.
- 3110 „ Trilok Singh Chand, Itaunja Dispy., 1 month on a. p. from 20-10-39 to 19-11-39.
- 2433 „ Chandra Swaroop Gupta, Shohratganj Basti, to leave 1 month and 29 days from 2-10-39 to 30-11-39.
- 2571 „ Ram Prasad, Attarra, Banda, to leave 1 month from 16-11-39 to 15-12-39.
- 394 „ Sh. A. J. Faredi, Jagdishpur, Sultanpur, to leave 10 days on a. p. from 23-11-39 to 2-12-39.
- 525 „ Dina Nath, Biswan Dispy. to Sub-charge, U.H.M. Hospital, Cawnpore.
- 2536 „ Shiva Kumar Dwivedi, Sub-charge U.H.M. Hospital, Cawnpore, to Reserve Duty, Cawnpore.
- 151 „ Bankey Behari Gupta, Atrauli Dispy., to leave 1 month and 15 days from 6-12-39 to 20-1-39.

ASSOCIATION NOTES

Proceedings printed below refer only to the Committee and Branches of the All-India Medical Licentiate's Association unless otherwise stated.

Burdwan: Proceedings of a meeting of the above Branch held on 30-11-39 with Dr. S. C. Maitra in the chair. 6 doctors were present.

Read and confirmed the proceedings of the last meeting.

Unanimously resolved that this Branch is not in a position to call the annual conference of the Mother Association at Burdwan for the present.

Unanimously resolved that the accounts of the provincial conference as audited be passed.

Contingent bill for the month of September 1939 amounting to Rs. 1/6/- was passed.

Jorhat: In submitting the annual report of this branch for the year 1939, I have to state that I took charge of office from the month of August from Dr. K. Ali-Hazarik. He conducted his work quiet efficiently but due to his ill-health and personal inconveniences he had to discontinue from the month of August. I thank him for the work he has done towards the association, and I congratulate all the office-bearers and the members of this branch for the interest they have taken in attending the meetings at the sacrifice of their valuable time in the cause of the association. I should like to specially mention the great help of Dr. B. B. Sen Gupta in the Assam Medical Education Advisory Committee of Government towards raising the standard of B. W. Medical School to that of a College which will possibly commence from the year 1943. I hope that all will be glad to tender a vote of thanks to him.

For this year, 6 meetings were held in which matters of vital importance for the Licentiate were discussed. There were also some scientific discussions on interesting cases.

A vigorous attempt was made for enrolling new members since I took over charge of office, and 5 new members have been enlisted.

A few members carelessly discontinued their membership and almost all of them have been re-enlisted, others will be approached by letters for rejoining.

Up to the present time we have got altogether 21 members in our list.

It is a matter of great regret that from amongst us none endeavoured to compete for the Association Prize Thesis notified in the I. M. J. I request the members to join in the competitions.

S. K. SEN,
Secretary.

A meeting of the Jorhat branch A. I. M. L. A. was held in the premises of B. B. Civil Hospital on Thursday the 7th December 1939 at 6 p. m.

The following members were present.

Dr. A. Hakim, Dr. D. Bhattacharjee, Dr. B. B. Sengupta, Dr. C. M. Pal, Dr. S. K. Sen, Dr. H. C. Hazra, Dentist, (visitor), Dr. P. C. Barua, Dr. Miss B. Zillie.

Dr. A. Hakim was in the chair.

1. Read and confirmed the minutes of the last meeting.

2. Dr. B. B. Sengupta gave a short account of his work at the Government advisory committee regarding medical education of Assam and the members of this meeting greatly appreciated and thanked him for his most reasonable discussions for raising the standard of the B. W. Medical School at Dibrugarh to the standard of a full fledged college.

3. The account of this branch for the month of November has been audited and passed for Rs. 1-8-0.

4. The following office-bearers are elected for the year 1940:—

President—Dr. A. Hakim.

Proposed by—Dr. B. B. Sengupta.

Seconded by—Dr. S. K. Sengupta.

Secretary—Dr. S. K. Sengupta.

Proposed by the chair and carried by the house:—

Asst. Secretary—Dr. P. C. Barua.

Proposed by—Dr. D. Bhattacharjee.

Seconded by—Dr. B. B. Sengupta.

Auditor—Dr. D. Bhattacharjee.

Proposed by—B. B. Sengupta.

Seconded by—Dr. C. M. Pal.

5. Read letter No. 17 of prov. secy. and elected the following members for the provincial standing committee.

1. Dr. B. B. Sengupta.

2. Dr. D. Bhattacharjee.

6. The annual report of this branch for the year 1939 was read by the Secretary and approved by all.

With a vote of thanks the meeting was closed.

(Sd) A. HAKIM,

President.

Calcutta Branch

As the annual report of the year 1938 could not be placed before the members, the Secretary takes this opportunity to place the annual report for the year 1939 together with that of 1938.

The year 1938 was important to us from two points. It was during this year that a special meeting of all the medical licentiates of Calcutta was held on 10th July, 1938, at 107, Lower Circular Road, with a definite purpose to re-organise the branch on a better footing. A house was hired at the above address with a scheme to have a reading room, indoor games and other social avenues in order to suit different tastes of different members. The inaugural meeting was held with a social which was possible because the Provincial Secretary sanctioned a grant of Rs. 60/- for the propaganda purpose. But we are sorry to record that we could not continue the scheme for want of sufficient fund and we must record our sense of thankfulness to Dr. S. Banerji for his sacrifices in foregoing a good amount of house rent which he paid and which the Association could not pay after paying only a fraction of the whole sum. We had to discontinue the scheme after a trial of four months.

The second most important work done by this branch in this year was that the Managing Committee made a strong representation to the Government to send one representative of the Medical Council of Bengal belonging to the licentiate group to the Medical Conference convened by the Government of India at Delhi in November, 1938. The Committee is glad to place on record that Dr. A. D. Mukherjee of this Association was selected by the Medical Council and he very ably represented the views of the A.I.M.L.A. in the proposed conference for standardising medical education in India. Ten meetings were held during the year 1938 and the following business was transacted:—

1. Surgeon-General with the Government of Bengal was requested to select Dr. A. D. Mukherji to represent Bengal Medical Council in the All-India Medical Conference convened by the Director-General of Indian Medical Services held in November, 1938, at Delhi.

2. Members met Rai Sahib Dr. P. C. Roy at an evening party on the eve of his departure to Europe.

3. Dr. S. C. Mukherjee, L. M. P., M. L. A., was requested to move a resolution in the Bengal Legislative Assembly recommending to the members of the Central Legislative Assembly the amendment of the Indian

Medical Council Act so that the medical licentiates could be included within it.

4. Rai Bahadur Dr. Hari Ram, the then President of the A. I. M. L. A. was met in an evening party by the members of this branch when he came down to Calcutta.

5. A representative of this branch (Dr. A. D. Mukherjee) was selected to be in the deputation arranged by the I. M. A. (Calcutta Branch) to Hon. Mr. N. R. Sarkar, the Finance Minister to protest against the special professional tax introduced by the Government of Bengal.

6. A committee consisting of Drs. A. D. Mukherjee, S. L. Roy, A. M. Mallick, U. R. Banerjee and A. N. Roy, framed resolutions for Gauhati Conference.

7. Resolution recording condolence for the death of Dr. Satkari Ganguli, a veteran worker of the Association, was passed and a memorial committee formed.

8. Anti-Indian Medical Council Act Day was observed in collaboration with the Indian Medical Association Calcutta Branch, under the presidentship of Dr. K. K. Sen Gupta, the Provincial Secretary of the I. M. A., Bengal Provincial Branch.

Our activity in the year 1939 was rather small in comparison with the year 1938. We had only six meetings and two items of importance may be mentioned which were transacted in these meetings along with other works. At a meeting of the branch held on 27th May, 1939, a resolution protesting against the unjustifiable remark made by Dr. Cursetji in the *Insurance World* of February, 1939, issue was passed and the Editor of the *Insurance World* and the President of Indian Insurance Association were informed that the opinions expressed by Dr. Cursetji was not those of organised profession as was evident from previous resolutions on the subject by both the A. I. M. L. A. and the I. M. A.

The most important resolution passed in the year was in connection with the Bengal Medical Amendment Bill of Mr. Anukul Chandra Das which was to be introduced in the Bengal Legislative Assembly.

Opinion expressed by this Association was sent to the Secretary, Bengal Legislative Assembly, for taking necessary action.

The following resolutions were passed in this connection:—

1. The Association is emphatically of opinion that no one should be admitted to the Register of Bengal Council of Medical Registration without appearing in the final licentiate examination of the State Medical Faculty.

2. That those who completed the full course of training prescribed by the State Medical Faculty, in the medical institutions which have since been recognised by the Bengal Council of Medical Registration prior to such recognition might be admitted to the Register provided they pass the final examination of the State Medical Faculty under specially arranged transitory provision. But in order that such questions may not crop up in future, institutions which are not recognised by the Bengal Council of Medical Registration should be abolished by the Government.

Lastly, the Association records with delight that for the first time in Bengal, the Government has nominated Dr. A. D. Mukherjee, a member of this Branch, and President of the Provincial Branch as a member of the State Medical Faculty of Bengal and the committee congratulates Dr. Mukherjee and is confident that he will justify the honour done to him and thanks the Government of Bengal for the recognition given to the claims of this Association. This Branch observed Anti-Indian Medical Council Day jointly with the 24 Parganas branch under the chairmanship of Mr. Amarendra Nath Chatterjee, a member of the Central Legislative Assembly who spoke strongly against the Black Act that has divided the medical profession into water-tight compartments.

Our hearty thanks are also due to Dr. K. P. Sen for the hospitality extended to us all the year round.

ADDRESSES AND ARTICLES

Control of Leprosy in Madras*

● Rai Saheb Dr. Isac Santra, Propaganda Officer, British Empire Leprosy Relief Association (Indian Council)

I am grateful to the Association for the invitation extended to me to speak on the control of leprosy, but as the subject is related to so many political, religious and social conditions, my statements may not be appreciated or seem practical to people looking at the problem from different angles of vision.

To control an epidemic we must know its strength, its position on the epidemic curve, its nature, the reaction of the community and government towards it, and the means at our disposal to combat it.

What is the strength or number of people suffering from leprosy in this presidency? The Surgeon-General in a letter dated the 10th September 1889, said:

"One of the first steps to be taken in dealing with leprosy should be a special census giving an enumeration of all existing lepers, showing their names and places of residence Having completed the census, a register should be opened, in which the particulars specified as also deaths and fresh cases should be carefully recorded."

This was 50 years ago. If this wise advice had been followed, today this presidency could furnish valuable data not available in any part of the world. Prior to 1929, the only figures available for leprosy was the census report where leprosy was dealt with as an infirmity. The decennial census figures from 1871 to 1921 ranged between 15,000 and 16,000. By the end of 1930 the Public Health Department completed the survey initiated by the Chief Leprosy Officer for the province. The number was found to be 56,000. Because of the propaganda created by the Public Health Department the 1931 census figure went up to 33,000, a cent-per-cent increase over the previous one. At the end of 1934 the Chief Leprosy Officer on compiling figures obtained from group leprosy officers and those registered in the 408 out-patient leprosy clinics found it to be 120,000. He, in an excellent paper published in *Leprosy in India* (Jan. 1939), mentioned

* A Lecture delivered under the auspices of the Madras Branch of the A. I. M. L. A. on 6th December 1939 at the Stanley Medical College.

that during 1930 to 1938, 200,000 cases of leprosy had been registered. This high figure does not exhaust the list, as clinics had not been opened in all dispensaries and survey did not extend to every part of Madras.

Recent surveys done by Rajgopal under the direction of Cochrane at Saidapet and by Abraham at Madurantakam in the Chingleput district show an incidence near about 6%. But these figures have been obtained from areas known to be highly endemic.

Presuming that the number of lepers in the Madras Presidency is 2 lakhs in a population of 467 lakhs the incidence is not so appalling as it appears. The important points indicating danger of spread are a high case-type-rate and a shift of the age curve to the left. Case-type rate is the number infectious cases to 100 cases of leprosy. The shift of the age curve can be judged from the childhood rate which is the number of cases amongst children to 100 cases of leprosy.

WHAT IS THE NATURE OF LEPROSY?

What are the aetiological and epidemiological factors underlying leprosy? Volumes have been written on the subject. In fact this is the easiest heading under which any leprologist can write anything which cannot be disproved though nothing convincing has yet been said.

Scientific research of leprosy was begun in 1839 by Dannielsen in Norway. 100 years have passed. Nothing has been achieved except that Hansen discovered the mycobacterium leprae in 1871. The bacillus has not been cultured, animal inoculations have failed, no specific remedy has been found and there is no serum or vaccine which can confer on the sufferer passive or acquired immunity.

Most of our present-day knowledge is based on field investigation and not on laboratory work. This may be told briefly:

1. Hansen's bacillus is the cause of leprosy. Most of the leprologists consider that it has not yet been cultured though Kedrowsky, Rienstierna and a few others think the bias that under all conditions it must be an acid fast rod has been a hindrance to accept cultures which are non-acid fast and of different forms.

2. Hansen's bacillus is the cause of neural and lepromatous leprosy: neural when the tissue resistance is high and lepromatous when it is low.

3. The presence of lepromatous cases, commonly known as open cases in a community, is the cause of spread.

4. People varying from the age of three months to 60 years have shown a primary lesion. But most of the cases take infection during childhood.

The rate of children contracting the disease from infectious parents is 50% while this figure relating to healthy wife and infectious husband is 3%. If we presume that contact between the two groups is same, the above difference can only be explained by assuming that people as they grow up develop a natural resistance against leprosy.

5. Proximity of infectious cases, age, general health, family history all being equal, it is noticed that some develop the disease while others escape. Thus the possibility of individual susceptibility needs consideration. Therefore in susceptibles a few extra-familial contact may be more harmful than many intra-familial contact in resistants. The lepromin test may help such investigations.

6. Number enumerated amongst males is 2 to 4 times more than that amongst females, though in children below 12, the distribution in both the sexes is almost the same. Some explain this difference by stating that females have a higher resistance towards leprosy while others maintain that the lower figure amongst females in India is due to observation of *purdah*, inadequate examination of grown-up women, and the less amount of exposure the women have in comparison to that of men.

7. Racial differences have been observed by many workers. The Mongolians develop a serious form while Indians develop a mild form. The Aryans of Europe and India develop different forms. The severity amongst Indians in the hills and plains also differ. The severity of the disease might be related to the positions of the epidemic in the curve. It is said that the disease is more severe in Anglo-Indians than Indians. Here is a case where racial resistance can be tested because the Anglo-Indians are the result of the blending of the two races. It is therefore possible that while some amongst them will have the benign type others would show the malignant type.

8. It is said that severe cold produces the severe type. In India the type found in the Himalayan region is more severe than what it is in South India. What action has sunlight on the exposed body of a leper is yet to be decided.

9. Diet and sanitary measures help to abort the disease in the very early stage, as is found amongst infected children removed to healthy surroundings.

10. The age of adolescence seems to have a distinct influence on the process of the disease. Most cases in children disappear during this period.

11. Treatment is beneficial in the early stage, specially in the tuberculoid cases. But treatment alone has not been found to eradicate the disease.

12. From the proportion of non-infectious to infectious cases it is judged that leprosy in this presidency is in the downward slope of the epidemic curve.

WHAT ARE THE MEANS AT OUR DISPOSAL TO COMBAT IT?

Our Central or Provincial Governments have never announced to control leprosy. Private bodies like B. E. L. R. A. (Indian Council), though has the object to "rid the country of leprosy", is yet a relief association. Let us hope that some day it may change itself to an association to control leprosy. The Mission to Lepers cares for lepers who are 'out of the camp'.

Both the Indian Leprosy Act (1896) and the amended Act of 1920 are not helpful. The former calls a person leper only when he has leprotic ulcers. We know that highly infectious cases may have no ulcers, and lepers with hideous ulcers may not be infectious. Under the amended Act comes any person having the slightest sign of leprosy. Thus a school boy in the incipient stage, according to the amended Act, can be removed from the school provided it is in force in the area and the boy can be accommodated in an asylum.

In the Madras Presidency advantage of this law was taken. There are 13 asylums and about 2,80,000 rupees is contributed by the Government toward their maintenance. But though they have been valuable institutions to give relief they have not helped in the control of the disease as will be evidenced from the figures on leprosy stated before.

Since the asylums were the only institutions tackling the problem, Government looked to the asylum medical officers for the necessary advice in the matter of controlling leprosy. But the officer working in an asylum does not see beyond it and he thinks that the kind of institution in which he works should be extended and multiplied. While the one investigating in the field is in touch with conditions under which leprosy generates and thrives, sees the wider aspect of the problem, and thinks that control measures should take into account the public opinion and divert it to the fulfilment of an effective and popular anti-leprosy campaign. As an example of different outlook I shall give the views of two such persons.

Donaldson, Medical Officer, Chingleput Leprosy Hospital advised :*

1. All early infectious cases ought to be in-patients in a recognised leprosy institution.

2. Early non-infectious cases to be housed in a separate block in a leprosy hospital and treated. They can be treated at out-patient dispensaries.

* *Leprosy in India*, Oct. 1939, pp. 35-37.

3. A home for the crippled or chronic leper could be built within a reasonable distance of the central institution and controlled from it.

4. Establish several small hospitals in addition to central institutions, the doctors in charge of which should have been trained at the central institution.

5. Medical men to be trained at Central institutions.

Myself, a survey worker, writing in the same number† put a question: "In what directions should the leprosy campaign in Madras Presidency be conducted?" and answered in the following way:

1. Register all cases after proper survey.

2. Offer treatment at every dispensary and open treatment centres in endemic areas with a view to arrest the progress of the disease in neural cases and sterilize the lepromatous cases as far as possible.

3. Teach the lepromatous cases to isolate themselves in their own houses, outside the village or if necessary in asylums.

4. Keep an eye on the children of leper parents with a view to treat at the earliest appearance of the disease.

5. Attach outdoor clinics to leprosy hospitals and use the latter for purpose of investigation.

6. Institute a demonstration centre to stamp out leprosy from a given area within a given time.

7. Appoint a provincial leprosy officer to initiate and superintend the above scheme.

Subsequently writing in January 1930 (*Leprosy in India*, page 15) I added that District Leprosy Officers should be appointed to help the District Health Officers in the anti-leprosy campaign.

The Madras Government took notice of my survey work done under the auspices of the British Empire Leprosy Relief Association and appointed a Chief Leprosy Officer who had worked in Madras and also acquired experience in other parts of India. This campaign with the co-operation of the Public Health Department made a rapid stride. In 1933 the Madras Leprosy Conference recommended the formation of district leprosy organisations. Such councils and committees were formed, extensive areas were surveyed and students in thousands were examined. Social workers like Mrs. Todd, Mrs. Kuryian, Mrs. Buck came to the forefront with their humanitarian projects, but by 1935 the chief leprosy officer realised that extensive survey should give place to intensive surveys done within a 5-mile radius to get figures of epidemiological interest, that the infectious cases should be isolated and that public health measures in the form of rural reconstruction to improve the general condition of living should be introduced in highly endemic areas if eradication of leprosy was aimed at (*Leprosy in India*, 1935, p. 122).

In 1936 Cochrane, an international figure in the leprosy world, arrived in India and took charge of the Chingleput Leprosy Hospital.

† *Ibid*, p. 47.

There was then Congress ministry eager to help the people. Cochrane took advantage of all that had been done previously, formulated a scheme and instituted urban, rural and childhood leprosy investigations.

It is a pleasure to find that what had been recommended in 1929 is being given effect to now. But I think there is still much to do and more to learn from other provinces and other countries.

I will now narrate a few points regarding work done in other countries in the direction of leprosy control so that we may avoid the mistakes which others made.

20 years back Gomez, Bassa, and Nicolas of the Philippines and recently Chiyoto, Rodriguez and Manalang of the same country described the earliest signs of leprosy in children. They also studied the effect of segregation on children. Chiyoto by using the lepromin test demonstrated that children below three years lacked in resistance. About the same time Muir studied early signs in adults in India. In 1927 he realized the importance of the spread of the disease to children. He said:

"Most cases of infection take place through nursing and handling of small children by infectious parents and servants. More than half the children who remain with highly infectious mothers develop leprosy."

In 1936 he said:

"The main problem in the control of leprosy is to prevent the infection of young children. In any community where this can be accomplished the disease is likely to become a negligible one within a single generation."

The Japanese were the first to inject hydncarpus oil. They have perfected the pathology of leprosy. Military conscription makes it easy to detect cases amongst men. Compulsory segregation is in vogue in that country. The number is gradually decreasing. Vasecomy is optional but many get it done willingly.

In recent days compulsory segregation measures began in U. S. A. in 1882, and in the Philippines in 1906. During the year the population of Philippines was 6 millions and the estimated number of lepers between 3500 and 4000. Between 1906 and 1933, 21956 bacteriologically positive cases were admitted to the Culion Leper Colony of which 13,630 died. There were also cases in other leprasoria. Rodriguez reviewing the situation warned:

"Leprosy cannot be stamped out from the Philippines unless the policy of forcible apprehension of lepers is discontinued and a policy of attraction substituted. To achieve this, two conditions are necessary: the establishment of adequate regional centres and the operation of outdoor dispensaries for the treatment of incipient cases."

Pro-segregationists (If I may use that word) make too much of the isolation measures

practised in Norway which is thought to have reduced the incidence of leprosy in that country. In 1896 Norway had 2858 cases or 0.2%. In 1934 this figure had dwindled down to 90 or 0.03%. But the explanation of this decline by the famous Norwegian leprologist, Dr. Lei, is worth studying and remembering. I quote from one of his papers.*

"The first part of the 19th century (1830) again showed a rise in leprosy figures which is attributed to the following causes: Wars, distress and misery amounting to absolute famine in some districts, subjected the Norwegian people to a strain, the like of which we cannot find in the mediaeval history of our country." The number of lepers rose from 650 in 1836 to 2079 in 1856. He concludes: "The course of leprosy in Norway must be regarded in connection with the whole economic and cultural history of the country. The increase and decline of the malady seems to follow, at some distance, periods of depression and prosperity in the country. The phenomenon seems to become clearer and more distinct the nearer we come to our own times. The great decrease in the prevalence of the disease since 1856 must therefore be regarded in the light of the great progress the country has made during that time in all respects, and as an important factor in this respect isolation, as conceived and applied, has played a considerable role."

In recent days attempts have been made in several parts of India to tackle the problem from a wider aspect. As for instance in the Kangra district which is an endemic spot in the Punjab, in addition to treatment at dispensaries and segregation at an asylum the leper clearance work is done side by side with the village uplift movement. Malhotra reports that in a total of 829 registered cases in that district, 484 were infectious out of which 71 were isolated in an asylum while out of the 247 L3 cases found in villages, 224 had been isolated outside the villages. In 1936, during my inspection of these isolation huts, I met a party of school boys outside the village. I pointed toward the huts and asked them what they were. The boys were surprised and said: "Sir, you are an officer and yet you do not know that this is the place where the lepers of the village should stay!" Thus you can easily realise the educative value of such huts.

Muir, the father of the anti-leprosy campaign in India, realised that if leprosy is to be stamped out from a community it should be done with the consent and co-operation of that community. In 1933 Muir and Chatterji in the district of Bankura (Bengal) started leprosy committees in seven union boards and many villages. Through the help of volunteers and social workers, clinic and isolation huts were built, survey conducted and enthusiastic citizens came forward to give every kind of help.

At Asansol, a mining area of Bengal, Sen with the co-operation of the local people has

formed a leprosy relief association. The staff working under the association consists of 5 medical men and 14 trained assistants. The campaign aims at survey, treatment, educative propaganda and segregation of highly infectious cases in village colonies and segregation camps. The work began in 1934 and till now 84,335 rupees have been raised from membership fee, donations and the proceeds of the annual leper day. After carrying out village work it was realised that ultimately a leprosy hospital has to be established for surgical relief and treatment of lepra fever and other conditions. The amount estimated for these purposes is Rs. 36,600. Donations received and promised till now amount to 27,894 rupees.

Dhanbad, another mining area in Bihar, started its campaign in 1932. Since then the Dhanbad association has been financing survey and clinic work and has built a leprosy hospital for the upkeep of which about 30,000 rupees was raised.

The recent policy adopted by the Government of Orissa needs special consideration as I think it is on the right lines in the matter of controlling leprosy. The Government does not believe in multiplying expensive institutions but recommends to isolate highly infectious cases near their own villages on plots of ground contributed by some charitable persons. The patients are supported by their own labour, their relatives and, if necessary, partially by Government. Four such isolation colonies are already in existence in that province.

I have told you in brief the work done in other places. Shall we consider what can be done in this province? Here you have a strong association which is carrying on certain valuable work and investigation. But my advice is this: *don't spend much money on guinea pigs. Don't try to build a motor car. You may spend your whole life to build one. Others have built them. Therefore buy one. There are proven definite lines which can be followed. Do not try to achieve something quick and spectacular. This has not been the case in any other country.*

It seems that recently the Madras Government have made over much of the responsibilities to the B. E. L. R. A., Madras. The memorandum of the Association states: "The branch is not intended to usurp or take over the details of the Medical or Public Health Dept. or other Bodies with regard to leprosy but it is intended to assist and augment the work of these different agencies."

Thus while the Association helps in the work it is expected that the Government

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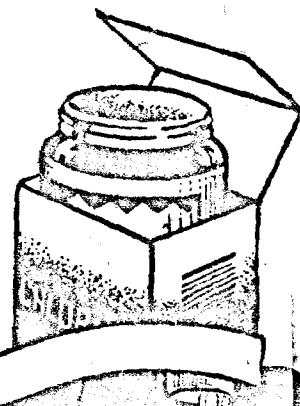
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specially their public Health Department, will have a definite programme of their own and will be carrying it on. Before I state the essentials of such a programme let me say that we cannot demand swaraj nor attain it if we have the mentality, let us say, to expect Englishmen to take care of our tuberculosis patients and the Americans to take care of our lepers. When the American Mission to lepers volunteered to supply American nurses for the Japanese Leprasoria, Mitusuda replied: "The Japanese woman knows to take care of the Japanese lepers" What a great lesson for us to learn! Our callousness towards our lepers is a national disgrace. Can you not imagine what lies are told about us and our civilization to get the money from foreign lands for the Indian leper? And what has been the result of all these? Has the disease been controlled? No.

Then let us begin in our own ways on the same lines our ancestors did, even as is done today in certain parts of India and the disease thus kept in check.

The programme I would outline is as follows: The Public Health Department can easily work out the details.

(1) *Train a band of Indian workers to take charge of the anti-leprosy campaign.*—I have visited seven different lands where leprosy is rife. My personal opinion is that our medical men are as capable as those in the other countries and they are fully qualified to take charge of every leprosy work that is being done now in the presidency. The training should be given in the medical colleges. Indian nurses also should be trained for leprosy work.

(2) *Register all leprosy cases.*—This can be done with the help of the village munsifs, sanitary inspectors, family doctors and medical officers in charge of leprosy clinics. The Public Health Department will decide if notification of the disease is desirable. Much help can be obtained from the previous figures, and from the examination of school children.

(3) *Start village isolation centres* in the way it is being done in Kangra, Asansol and Orissa.

(4) *Use the existing leper asylums as hospitals for needy cases sent from the village colonies.* There should be complete co-operation between village colonies and leprosy hospitals. The colonies should be distributed on territorial basis related to each leper asylum in the province so as to prevent lepers to travel from one end of the country to another to get admitted into any particular place.

It may be necessary to persuade male lepers to have vasectomy done on them. Affected children should be cared for and all precautions

Infantile Biliary Cirrhosis: (2) Soil and Environment

● Dr. S. Balasundaram, Director,
The Ehrlich Laboratory, Madras

In my last article* I pointed out that Infantile Biliary Cirrhosis is particularly common in the deltaic areas of India and that the male sex had a particular proclivity for the acquisition of this disease. How the environments in the deltaic area are responsible for the production of this disease is a point worth investigation. It is necessary to know in this connection that in the evolutionary process of man, the soil and the salt contained in it play a great part, especially in influencing the race and the sex. The prime factor in the evolutionary process is a natural selection of various food substances found in the soil. The adaptability of human beings to the various kinds of soils, not only in their features but in habits and temperament, have been amply shown by anthropologists. The ethnologists have shown by experiments on lizards and on tadpoles and various other land and aquatic animals that even physiological processes and the mineral content of the animals can vary according to the environments. In fact there are several anthropologists who believe that the close resemblance of the mineral content of blood to sea water shows that probably man himself originated from a small aquatic animal. Whatever it is, science has advanced to a sufficient extent to show that environment does play a great part in the evolution of man with his intricate physiological and pathological processes.

The influence of environment on sex can be understood if we take sex-linked genes as the special protectors of the next generation.

*Ind. Med. Jr., December, 1939.

should be taken to prevent healthy children against coming in contact with infectious cases.

(5) *Last of all and the most important point to realise, is that leprosy, like tuberculosis, is a social disease, and should be dealt with by social hygiene.* This means the equalisation of all classes in terms of health.

(6) Finally, let me repeat what I said at the Cairo Conference: *Leprosy in India is so intimately connected with poor diet, congestion and evil customs that the decrease of the disease will be in proportion to the village uplift work.*

Such a sex-linking is useful to supply the proper minerals necessary for the offspring without the necessity of hoarding all the minerals required for such a process in a single person. The male tries to store up certain minerals while the female stores some others, and in a procreation male or female is produced depending upon the need and the quantity of minerals available from the parents. It seems, therefore, that sex and sexuality depend a great deal on the amount of minerals available from the soil. This fact probably explains the frequent pregnancies with the production of ill-nourished and impoverished children seen everywhere which may have its cause in reduced quality and quantity of the mineral content of the foods of the parents. I think I have sufficiently explained the fact that the soil plays an important part in the mineral physiology of mankind.

The influence of climate on the soil is manifold, but is not worth mentioning here as it is a fact accepted on all hands. But how far the influence of climate in the deltaic areas has affected the soil and what are the minerals chiefly deficient in the deltaic areas is a matter of interest for us in the present investigation. With this object I got into touch with the Director of Agriculture and the Agricultural Chemist and the bulletins published by them on the chemical analysis of soils of some of the deltaic areas in the Madras province. Fortunately for us the Agricultural Department had done chemical analysis of soils of Tanjore, Guntur, Godavary, and Krishna deltas as also the soils of Periar tract and Malabar, precisely the same soils which we would like to examine ourselves for our purpose. The findings of the Government are published in the form of Bulletins. Many of them are interesting from our point of view. I am giving below in tabular form a summary of the Government's findings so far as they interest us.

IMPORTANT CONTENTS OF SELECTED SOILS

Soil Contents	Tanjore	Guntur	Godavary	Kistna	Periar Tract
Phosphoric acid	Deficient	Normal	Deficient	Normal	Deficient
Nitrogen	Less	Low	"	Less	Good
Potash	Rich	Normal	Plenty	Normal	Normal
Lime & Magnesia	Sufficient, Excess of Magnesia over lime	Rich	"	"	Magnesia in excess

The usefulness of the above tabular form will be understood if we realise that the food of all animals, including man, must be derived from the soil. Substances which provide

structures in all living cells are phosphorous, sulphur and nitrogen. The minerals contained in the soil play a great part in the absorption of phosphorous and nitrogen by the plants and then by the animals. Pastures which are low in minerals have been found by many to be low also in proteins. It will be seen from the tabular form that the available phosphoric acid for paddy grown in these deltas is less than the quantity normally required or just normal and the nitrogen also is at a low level in many of the deltas. The available potash, lime and magnesia are comparatively sufficient and rich. The phosphorous and nitrogen shortage unless counteracted by proper manuring facilities would affect the nutrition of the paddy grown in those areas. This shortage of the mineral constituents in the vegetation of these areas affects the quality of the food of the human beings, especially, with regard to their mineral metabolism. The parents with such deficient mineral metabolism have to give birth to children who have to counteract this mineral deficiency. The endocrine system of the new born adapts itself to the environment. *Though for our purpose we have taken the deltaic areas for consideration the same is true of all places where there is a deficiency of phosphorus and nitrogen.* Lack of phosphorus, as also an excess of calcium, is associated with the lack of iodine, and so children born in these localities would be with a tendency to conserve iodine and get more phosphorous. Thus a phosphorus shortage produces a pre-adaptation in children to withstand iodine deficiency or *vice versa*. This pre-adaptation is effected by the endocrine organs of the children. Since a shortage of phosphorous and iodine has been found to slow the gonads, we can easily imagine that a pre-adaptation can be produced by a slight overaction of the anterior pituitary which controls the gonads. But this will result in a slight depression to the posterior lobe. The slight overaction of the anterior pituitary with increased activity of the gonads will be in unison with a natural increased activity of the suprarenal glands. *Thus a phosphorous shortage in the food of human beings results in the production of children with a pre-adaptation for this kind of shortage in the endocrine organs characterised by a slight over-activity of the gonads, the suprarenals, the thyro-parathyroids and the anterior pituitary.* Such a state of affairs, though may be present in all the children born in places where there is a phosphorous shortage, yet sexual differen-

tiation may either aggravate or modify the endocrine system of the children. The male is usually characterised by a greater activity of the adrenal cortex than the female. This increases the chlorine content and probably lowers the sodium content of the body tissues, thus increasing the power of attracting calcium. So, as a rule males are calcium accumulators and females are calcium dissipators. In a place where there is a phosphorous shortage it is not therefore difficult for the female from the very nature of her requirements to maintain the mineral balance. Extraordinary overactivity must be maintained by the endocrine glands mentioned above in the males born in areas of phosphorous shortage to keep up their calcium level and to counteract the shortage. In other words, the children born with a pre-adapted overactivity are at a special disadvantage if they are males, due to their peculiar metabolism pertaining to their sex. This may account for the preponderance of male children in the incidence of biliary cirrhosis.

The wide distribution of manganese, both in plant and animal kingdom, has led many people to think that it plays a considerable part in the nutrition of man. Extensive research is being done on the subject by various nutrition workers with diverse results. Whatever these results may be, one thing is clear, viz., this element is found in sufficient though small quantities, in many of the important organs. It is found especially in large amounts in the suprarenal glands, the liver and the pancreas. Its presence in the pancreas which is responsible for the oxidation of glucose confirms, to a small extent, the belief that it is concerned with the synthesis of insulin. It is also shown by some authors that manganese is found in sufficient quantities in the foetal liver, which shows a definite increase in the last three months of foetal life. It has also been shown that it diminishes during the nursing period but increases again after weaning. This fact brings home to us that manganese may also play a considerable part in the mineral metabolism of the child. The nature of the action of manganese is not yet known. Some believe it to be connected with vitamins. Sheldon has shown that manganese deficiency leads to atrophy of the testes and inhibits the female instinct to suckle the young. Probably an excess acts the other way leading to an excessive activity of the testes. Thus the available information regarding the effect of manganese on the nutrition, though may not be sufficient to warrant an inference that this mineral is in any way

Non-Specific Immunotherapy In Surgical Practice

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Non-specific immunotherapy has its roots buried deep in history. Throughout the ages medical science has produced many examples of the benefits derived from the methods of trial and error. One of the chief merits of the modern system of medicine has been to restore by such methods the reputation of many ancient remedies which had been cast upon the therapeutic scrap-heap. Since the time of Emil Von Behring enormous strides have been made by his disciples to enlarge the scope of immunotherapy by developing non-specific immunotherapeutics.

My aim in this article is to give an account of the clinical results of treatment in common types of surgical ailments by immunotherapeutic agents. The idea of treating such cases by non-specific immunotherapeutics is not altogether a new one. Guszich and Zeotan found definite favourable effects on large carbuncles of the neck and phlegmonous processes. Weichherz treated furuncles of the lips and had very good results. Igarashi and Frankel wrote that this therapy often prevented the spread of the inflammation. Their view has been corroborated by Grunzweig and Schnapek in the case of mastitis.

responsible for a predisposition in the children for Infantile Biliary Cirrhosis by having their endocrine systems in a state of overactivity, yet leaves the door open for further study in that direction.

SUMMARY

1. Phosphorous shortage in the food of adults results in the production of children with a pre-adaptation for counteracting such shortage.

2. The pre-adaptation is in the form of an increased activity of some of the endocrine organs of the children.

3. This counteraction has to be further strengthened if the child is a male due to its peculiar metabolism with a bias towards the accumulation of calcium in the body.

4. Manganese as an important mineral found in organs and tissues of children, its effect on the oxidation process of the body and on the endocrine system in general, and the particular effect produced when this mineral is in excess in a soil, are all problems worth investigating.

That which prompted me to resort to this form of treatment, instead of the more commonly used milk preparations, is the bitter results I experienced in a number of cases after milk injections in the shape of local or general reaction, or severe shock. A Gujrati woman, aged 25 years and fairly well-built, was given $2\frac{1}{2}$ cc. of a certain milk preparation. Within a few hours after the injection the temperature shot up to 105° F and the site of the injection was extremely painful. In another case, 5 cc of a known milk preparation in a female aged 30 years of a good constitution produced within a few minutes, symptoms of severe shock and the patient had to be kept on guard in addition to the requisite treatment for some hours before she could be left alone. It should be noted that there was nothing to doubt of any technical defect or aseptic precaution.

Although such cases are fortunately rare yet a general practitioner would find it extremely difficult to impress upon his patient the rarity of such occurrences. Moreover, I believe, young practitioners will not in most cases find his patients back again in their clinic in case any of them happened to undergo such an ordeal.

Krishnan (1931) wrote:

"Recent researches on the nature of reactions following the administration of different protein substances not only lay a good deal of stress on the necessity for a judicious use of these substances in select cases alone, but also point out the disastrous nature of the results likely to follow their improper use".

Cecil (1935) wrote:

"The reaction of foreign protein injection varies from an almost imperceptible one to extreme shock associated with high fever, profound vasomotor disturbance and other constitutional phenomena". While on the subject of untoward reactions the writer adds: "Among the complications attributed to foreign protein reactions have been delirium tremens, cardiac failure, vascular thromboses, acute nephritis, herpes labialis, rheumatic purpura, acute diarrhoea and activation of old pulmonary tuberculosis". (The author mentions that he has seen four fatal reactions from foreign protein therapy.)

Thus, there is evidence to show that the unpleasant sequelae following the injection of a foreign protein are not indicative of therapeutic efficiency. That is the reason why I have chosen to give a fair trial to non-specific immunotherapy.

My series of cases were confined to only one preparation, namely, STERODIN. This comprised of 20 cases and included cases like boils, abscess, mastitis, cellulitis, tonsillitis etc. An almost equal number of similar types of cases were kept as controls. In these cases only local treatments were done up to the point of a definite indication for either surgical interference or resolution. The percentage of success (i.e., avoidance of surgi-

cal interference) with a combined STERODIN and local therapy was decidedly higher when compared to the control group.

ILLUSTRATIVE CASES

(1) Hindu male, aged 28 years, of fairly good constitution, developed a furuncle on the left half of the tip of the nose three days before the case was seen. On the second day he noticed some sero-purulent discharge. He never admitted of having squeezed or scratched it. The following day he had a rise of temperature up to 101° F and a gradually increasing oedema around it. On the next day he felt a tense pain around the focus of infection, the whole of the left side of the face was oedematous and the eyelids were closed. On examination the infected site was found to have a slight sero-purulent discharge with an inflamed area around it. The oedema was of a non-inflammatory nature. Axillary temperature gave a reading of 100.8° F. Tongue dry and coated. Rales and ronchi were scattered over both the lungs. Bowels constipated. No other abnormality could be detected. Although the condition of the patient was not very serious, the patient was extremely anxious to be relieved of the condition.

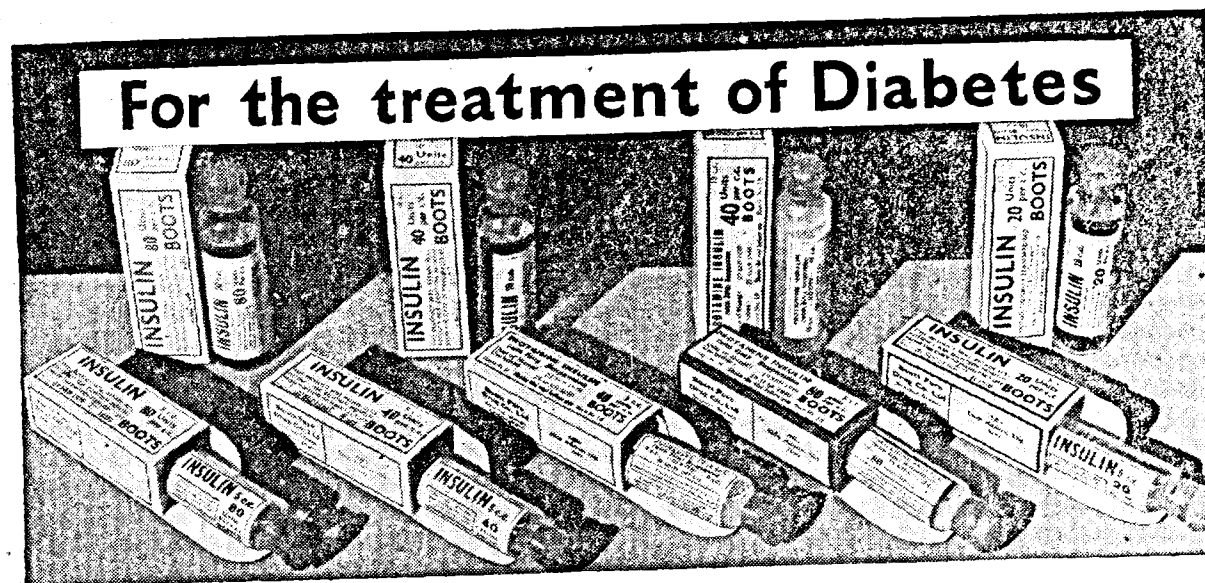
Treatment.—Sterodin 2 cc injected intragluteally. The wound was dressed carefully after hot compress which was repeated every 4 hours. Attention was paid to the lung condition and constipation. Fluids given freely. Next morning, there was no remission of temperature or the oedema. It was decided to give him an injection of urea sulphazide and 5 cc was injected intramuscularly. On the third day the oedema slightly diminished and the maximum temperature was 100° F. Two more injections 2 cc each of sterodin were given. The temperature gradually touched normal, oedema subsided and the wound healed up. It is needless to add that hot compress and the other accessory treatments were continued throughout the whole course. The patient made an uneventful recovery.

(2) Hindu female child aged 12 years. Acute tonsillitis. Temperature 101° F. Tongue badly coated. Duration 2 days. Sterodin 1 cc injected intramuscularly. In addition a gargle of urea sulphazide solution in the proportion of one ampoule of 5 cc diluted in a glass of water with the advice that the whole contents of the solution to be gargled away in course of the day. In the evening the temperature came down to 100° F and the next morning the condition of the child was much better, the temperature was 99° F and less pain in the throat. On the third day the child was given another 1 cc injection of sterodin. No more injection was necessary. The urea sulphazide gargle was continued for 2 days more. The child was cured.

(3) Hindu Female 29 years. Gave history of having had a prick at the tip of her right index finger while preparing a fish for the kitchen. On the third day the site of the prick was extremely painful and noticed swelling of the finger. Had no record of temperature but uneasiness and malaise were present. The following morning the swelling was on the increase and pain was great. She was a neurotic type of woman and was extremely afraid of surgical measures. The temperature on examination was found to be 99.6° F. The prick point presented a small droplet of pus. She was advised a hot bath of the part every 2 hours. Sterodin 2 cc given and the arm was kept on a sling. The next morning temperature was down. The pus point was absent. Hot bath continued. A second injection of sterodin 2 cc was given on the third day. No more treatment was necessary.

(4) A case of mastitis in a Hindu female aged 28 years. The patient was anemic and weak. Onset 3 days back with the left organ swollen, actually painful and tender. Sterodin 2 cc injected plus the usual local treatment. In this case only one injection was necessary to put a stop to the inflammatory process.

(5) A male child, aged 3 years, was developing a gluteal abscess. History of 4 days. The affection was on the left side. Local treatment with linseed poultice at night and hot compress every 4 hours during the day was advised. The limb was kept immobilized with a splint. Sterodin in



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doses of $\frac{1}{2}$ cc every alternate day up to 3 doses were given; no incision was necessary and the child got cured.

Out of 20 such cases, 15 showed a definite improvement i.e., 75 per cent of cases could be declared cured (as already stated the criterion for cure has been, considered as non-surgical interference) after a combined sterodin and local treatments. Among the control group of 15 cases, approximately 5 or only 33 per cent of cases could be left alone without surgical interference.

It should be noted however that Sterodin injections were given at the earliest possible manifestation of infection i.e., before actual stage of suppuration had set in. It is not of course possible to make a critical assessment on the value of non-specific immunotherapeutic agents on a study of such a small series of cases, but it is fairly well proven that given at the beginning of an attack (not only in surgical cases but also in conditions like influenza, bronchitis, broncho-pneumonia etc.) it at least helps to a great extent by mobilising the defensive forces of the human system and cuts short the course of the disease if it cannot abort an attack.

It should be clearly understood that it is not my intention to bring into disrepute the time-honoured protein therapy. But what I have endeavoured in this article is to stress that immunotherapeutic agents like Sterodin should find a definite place in the treatment of common surgical affections with a view to avoid, if possible, surgical interferences.

I desire to thank my former colleague Dr. B. Mukerjee for helping me in some of these cases under my treatment.

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CLINICAL NOTES

(Owing to exigencies of space, only brief extracts from case-notes sent for publication in the *JOURNAL* are printed below. This arrangement may not be altogether just to the authors, but it will however be of advantage to our readers from the point of view of easy reading and of presentation of a larger number of such case-notes than is possible were they to be published in full.—Ed., I. M. J.)

Treatment of Opium Addicts

The treatment of opium addicts, if it is to be successful on a large scale, should be applicable to all cases—young or old, male or female, new or old addicts. Besides any treatment that may be suggested should not require special medical help but should be such as to be carried out by the addicts themselves or their relatives or neighbours.

Sudden withdrawal of opium results in: (1) languor, restlessness, delinquency in household affair and a great craving for opium which if not obtainable or obtained raises a frightful feeling of impending death; (2) nervous symptoms such as rigor, cramps, rapid pulse, sleeplessness and delirium.

But all these symptoms of sudden deprivation last only for 10 to 20 days. The most active and painful symptoms remain for about 5 days only, and gradually subside either naturally or by a little treatment. They however require close and tactful attention.

The addict should be firmly but pleasantly persuaded to give up his habit, and his attention diverted to healthful pursuits. He should not however be kept alone or unoccupied. Nourishing food should be given and frequent drinks of sugar-cane juice should be taken which would engage his attention to his great advantage. Other symptoms of withdrawal should be treated by substitution therapy. I have found in my experience that a mixture of essential oils gives excellent psychic and physiological results. I use the following in a mixture: oils of clove, camphor, menthol, eucalyptus, anisi, cajput, coriander, cinnamon, juniperi, terpineol with creosote and musk. Under my instructions, the Assam Chemical Works, Jorhat, has prepared this mixture and named it *Garole*. Five to ten drops of this mixture in sugar, biscuit or bread, given 3 or 4 times a day and continued for a week or two seem to be enough to alleviate the symptoms of deprivation. Relief of constipation, dull appetite and sleeplessness must be secured by enemata and moderate exercise.

A few obstinate cases may require special medical attendance and removal to hospital for special care and treatment.

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As has been observed in the recent opium prohibition campaign in Assam, the addicts do not die because of deprivation but of other diseases due to exposure to infection during the low-resistance period which inevitably follows sudden deprivation. It is necessary therefore to build up the resistance of the addicts during the short post-deprivation period.

Jorhat.
12-12-39.

B. B. SENGUPTA, L.M.P., I.M.D.

A Case of Unusual Recovery from Asphyxia Pallida followed by Severe Hæmatemesis and Melæna*

On the 20th Dec. 1938, I was called to see a woman who was said to be suffering from prolonged labour. It was found to be a case of primary uterine inertia and was given an enema, a hot vaginal douche and 1 c.c. pituitrin intramuscularly. The child was delivered manually after an hour but was found to be in a condition of asphyxia with the heart sounds feeble and intermittent. While examining the child the guardian and relatives told me to put the child under rug, preparatory to burial, thinking it to be dead. But after giving them a little hope I began to perform artificial respiration. There being no immediate effect, four minims of pituitrin was injected intramuscularly and after about one and half minutes the heart began to beat regularly. Artificial respiration was continued successfully.

After an hour the child began to pass blood from the mouth and rectum. No abnormality could be detected in either aperture. So the child was put on calcium lactate (grs. 2) and hydrarg. cum creta (gr. 1/3) three times a day with milk. (Other preparations of calcium and hæmoplastin were not available.) From the second day the case showed a little improvement and on the fourth day the passage of blood from the mouth and rectum completely ceased. The child is now four months old and well-developed.

I suggest that the cause of hæmatemesis and melæna in this case might be due to a hypocalcæmic condition of the blood of the child.

Jullibari T. E., D. D. SARMA BARUAH, L.M.P.
Hoogrija, Assam, 10-6-39.

* Read in the monthly meeting of Tingri Valley Branch, A. I. M. L. A., on 23-4-39.

Wasp-Bite

With reference to Dr. Monohar Lal's case-note published on page 254 of the July 1939 issue of the *Journal*, I may be permitted to

report another recent case of wasp-bite. A woman aged 20 years, quite hale and healthy, received a wasp-bite on her right index finger on 15-7-39 at about 9 p. m. Fifteen minutes after, she developed severe urticarial rash all over the body with intense itching accompanied by marked dyspnoea. On careful examination I found that the whole body was covered with urticarial wheels, pink in colour with white centres and particularly well marked on the chest, the arms and the face. Face and eyelids were so swollen that she could hardly open her eyes. The dyspnoea (air-hunger type) was also so intense that at each respiration the patient had to bring into full play all the accessory muscles of respiration producing a rattle in the throat audible even from a long distance. There was also tympanitis. The patient could only speak in whispers, and appeared to be in great agony and distress.

The sudden sequence of symptoms after the wasp-bite; the characteristic urticarial rash; and the asthmatic manifestations, all pointed to the allergic nature of the condition. This was promptly relieved by adrenalin hypodermically and amyl nitras inhalations.

It is said that allergy is an inherited condition. But the present case gave no such history.

Besides, it is also strange that the patient who was bitten by a wasp fifteen days ago did not show the symptoms as in the second bite.

Perhaps, the ingestion of a particular noxious food or decomposed food or incomplete digestion of food on that particular day might have augmented the allergic symptoms excited by the wasp-bite.

Ghardiwalla, Punjab, CHAMANLAL SHARMA, L.C.P.S.
25-7-39.

The Uses and Abuses of Silver and Copper Salts in Ophthalmology

I have written this short note with the object that the general practitioners should have a comprehensive knowledge as when to use copper sulphate or citrate or silver nitrate or organic salts of silver.

Silver Nitrate:—This drug is used in the form of solution ½%, 1% or 2%. The milder percentage is used as drops while the stronger solution is used for touching the lids.

½ to 1% is used as drops in mild forms of conjunctivitis, and in babies immediately after birth to prevent sore eyes.

2% solution should not be used as drops. This will aggravate the conjunctivitis.

In catarrhal, conjunctivitis and in early stages of granular lids where there is proper discharge, silver nitrate touching is advised. A swab dipped in a 2% solution is taken and swabbed over the everted lids and the excess removed thoroughly with normal saline or boric lotion. Mild touching is sufficient. If it is rubbed roughly or if the swab touches the cornea the disease gets aggravated.

Argyrol:—This is used in the form of 15 to 30% solution in various forms of conjunctivitis. But its prolonged use is contra-indicated since it produces argyrosis. This drug is used nowadays in the form of ointment with better results.

Collargol or Protargol in the ointment form (5%) is extensively used in conjunctivitis, corneal ulcers, granular lids, endophthalmitis, iritis, irido-cyclitis, etc. This is a favourite eye ointment of the Minto Ophthalmic Hospital, Bangalore.

Copper Sulphate:—This is used in the form of crystals or 10% solution for touching over the everted lids in trachoma. It is used in the granular stage regularly and occasionally in 3rd and 4th stages of trachoma. The rubbing should be light. The drug is absolutely contra-indicated when there is corneal ulceration. In pannus-trachoma the drug is found to be very useful and I have found the pannus disappearing in a very short period.

Copper Citrate:—This is used in the form of an ointment (5% and 10%) when active treatment is stopped. This is indicated in pannus and contra-indicated in corneal ulceration.

Copper Citrate and Silver Nitrate:—Are used in the form of an ointment for granular stage in trachoma. It is indicated in pannus and contra-indicated in corneal ulcers.

Silver Nitrate:—In the form of 2% solution it is indicated for touching the lids in trachoma with corneal ulceration. It is wrong to treat corneal ulcer with atropine without first treating the conjunctival condition which is the primary cause.

Chodavaram,
6-7-39.

K. KRISHNAMURTHY,
Eye-Surgeon.

An Interesting Case of Hiccough due to Malaria and Cured by Quinine

One Laloo Ahir, aged about 35 years, was admitted to this dispensary on 19th October

1939 complaining of hiccough for the last 9 days constantly by day and night. He gave a history of having had two attacks of fever 9 days ago which cleared each time after an interval of 12 hours. After the second attack, he started to hiccough for which he tried several country medicines without any relief.

On admission, the patient was found to be debilitated and exhausted due probably to lack of sleep. The spleen was on examination found to be enlarged two fingers' breadth below costal margin. No other abnormality could be detected. He was given an injection of liquor adrenalin hydrochlor 1 c.c. just after admission which controlled his hiccough for an hour only. Later, he was treated with mustard plaster over the epigastrium, acid hydrocyanic dil by mouth, and morphia-atropine injection, all of which gave him temporary relief for an hour or two only.

On the afternoon of 20th October 1939 he got an attack of fever which came down to normal after about 12 hours, the hiccough continuing all the time. Again on the afternoon of 21st Oct. '39 he got fever which came down to normal in the morning of 23rd Oct. '39. On the 22nd noon I gave him an injection of quinine-bi-hydrochlor gr. 10 intramuscularly and quinine mixture by mouth, t. i. d. The hiccough stopped completely after about half an hour of quinine injection. Later he got one more attack of fever on the morning of 24th Oct. '39 which was controlled by quinine by mouth, but there was no recurrence of the hiccough.

I am indebted to Major R. A. Wesson, I. M. S., Civil Surgeon, Gorakhpur, for his kind permission to send this case-note for publication.

Dt. Gorakhpur, (U. P.), JAI KRISHNA LAL ARORA,
4-12-39. M. O., I/C. Kasia Dispy.

Phthisin In Tuberculosis

(1) Mrs. G., aged 19, married, multipara, had an abortion, but bleeding continued for sometime longer than usual. Bleeding stopped after treatment but she developed fever with pain in the left iliac fossa. Her bowels were constipated and the fever ranged between 100° and 102° F. She was given by her physician a good number of calcium gluconate injections which however did not control her fever. When she came under my treatment, she complained of severe pain on the right side of the chest also. This made me suspect tuberculosis. I therefore employed Phthisin (Krishna) injections subcutaneously twice a week. Internally, guaiacol-cinnamate with

pulvis ipecac was also given for a few days. The response was good; the temperature came to normal after 18 injections and pain on the right side of the chest and the left iliac fossa was relieved.

(2) Mrs. B., multipara, aged 23, began to get fever with rigor and chill characterised by marked periodicity. She had also palpable liver and spleen. Without examining her blood for the malaria parasite, quinine was given for a few days. Though this lowered the temperature, yet she developed anaemia, slight pain on the right side of the chest, and dry cough. A fortnight after this development, her sputum was examined under the microscope. A few tubercle bacilli were visible on the slide. I treated this case also with Phthisin (Krishna) when her temperature came to normal after the fourth injection. In between Phthisin injections, Collo-calcium with Ostelin-vitamin D was also injected. Altogether 16 Phthisin injections and 12 c. c. of Ostelin-vitamin D were given. During convalescence, Ostomalt and Kalzana were prescribed. She had apparently an uninterrupted recovery.

Points of interest in these two cases are:

- That sometimes latent tuberculosis becomes active owing to such causes, as abortion in the first case and severe attack of malaria in the second case.
- That in cases of this kind physical signs of tuberculosis manifest late in the course of the disease.
- That Phthisin (Krishna) relieves to a great extent the pain and fever of tuberculosis provided the drug is used for a reasonable length of time.

17-10-1939
Benares.

B. C. SEN, L.M.P., M.B.

A Case of Acute Retention of Urine Due to Retroversion and Retroflexion of Gravid Uterus

A Hindu female, aged 30, was brought to my dispensary on 18-3-39 for the treatment of the following chief complaints:

- (1) Complete retention of urine
- (2) Constipation of 4 days' duration
- (3) Pain and swelling in the pelvic region

There was nothing particular in her personal history, except that she was a multipara with two surviving children. Abdominal examination showed a rounded swelling extending up from behind the symphysis pubis to one inch above the umbilicus. Uterus could not be palpated. Atropine Sulphate (1/100 gr.) was given subcutaneously and this was followed, half-an-hour after, by warm soap water enema containing castor oil (1/2 oz.). Though the bowels moved well yet she did not pass urine.

Hence the patient had to be catheterized when about 140 ozs. of urine were drawn. After the bladder was relieved, uterus could be palpated at the level of the symphysis pubis. On vaginal examination I found that the cervix was pushed high up behind the symphysis pubis, and the posterior vaginal wall pushed forward. With the help of the speculum and my finger, I found the uterus lying backwards in the hollow of the sacrum. But there being no instruments or pessaries in stock, I simply left the patient and kept observing her progress. In the interval she was put on hexamine. To my surprise, on the third day, the patient stated that she was able to pass urine naturally. Before discharging her, I once again made a vaginal examination and found that the gravid uterus was still in the same position.

This case would illustrate that retroversion and retroflexion of the gravid uterus, as a cause of acute retention of urine, should always be kept in mind in the case of a pregnant woman, especially in the third and fourth months of pregnancy.

8-9-1939 R. P. TREHAN, L. S. M. F.,
Medical Officer, Atarra, U. P.

In a suit filed by GLAXO LABORATORIES LIMITED of Greenford, the well-known manufacturers of GLAXO products against "GLAXO SURGICAL COMPANY" of Sialkot City in the High Court, Bombay, the plaintiffs' case was that they had for several years imported into and sold in India pharmaceutical and medical preparations through H. J. Foster & Co. of Bombay; that on almost all such products the name "GLAXO" appears prominently; that one of such products, a baby food by the name of "GLAXO" which contains the word "GLAXO" printed in a distinctive style, has become very popular all over India; that the word "GLAXO" on any product has come to connote to the public that it is a product of the plaintiffs; and that the word "GLAXO" appearing as part of the name of any concern has come to connote that such concern is connected with the plaintiffs. They complained that the name of the defendants was so similar to their name as to deceive and that the defendants had by circulars and otherwise advertised and sold surgical products such as hypodermic syringes and stethoscopes under the name "Glaxo" printed in the distinctive style in which it is used by the plaintiffs, and that such products had been purchased by certain members of the medical profession under the belief that they were the products of the plaintiffs, which they were not.

At the hearing of the suit on the 22nd December, 1939, a decree was passed granting the plaintiffs a perpetual injunction restraining the defendants, their servants and agents from carrying on business under the name of "Glaxo Surgical Company" or under any name which contains the word "Glaxo" or under a name which is calculated to deceive the public into believing that it is connected with or associated with the business of the plaintiffs and from selling or from advertising for sale their products under the name "Glaxo" or a colourable imitation thereof or in a manner likely to mislead the public into believing that they are products of the plaintiffs. The court further ordered the defendants to deliver up or destruction before the 15th January 1940, all stocks in their possession of letter paper, bills, circulars, leaflets, stationery and goods bearing the name "Glaxo Surgical Co.," and the word, 'Glaxo'.

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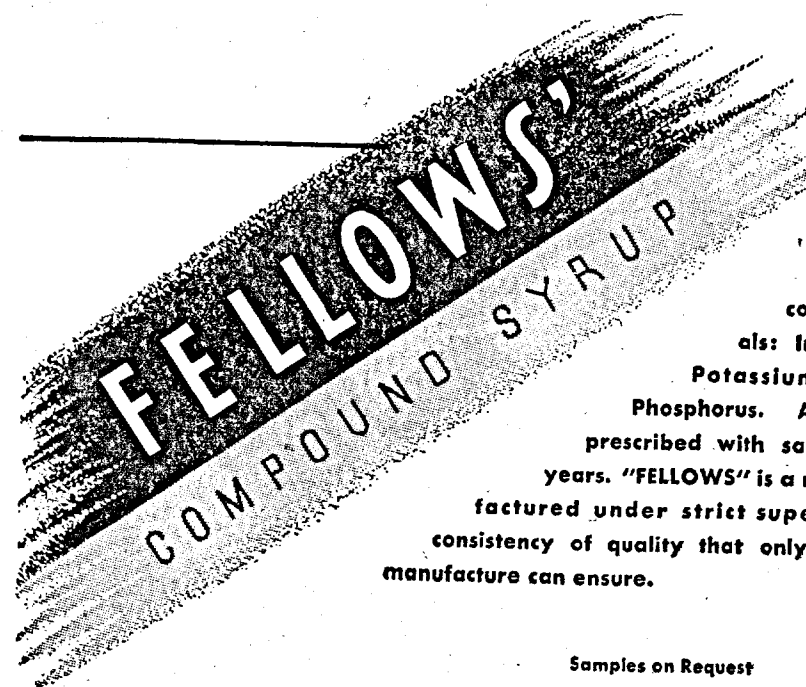
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Vol. 34 | MADRAS: Feb. 1940 | No. 2

The Sixteenth All-India Medical Conference

Dr. Doulat Ram, Chairman of the Reception Committee of the All-India Medical conference, held at Lahore during the last Christmas week-end, has expressed truly the mind of the Indian Medical Profession when he said:

"Words will have to be backed by action before any result is achieved, and whatever resolution we pass at a conference must become our war-cry during the year."

If one applies this criterion in judging the proceedings of this conference as revealed by the resolutions passed, one cannot help feeling that there is a sad gap between words and action, and that the Indian Medical Association is guided more by personalities than principles.

We shall prove what we say. The three important subjects which were discussed at the conference were: medical education, provincial medical councils and the Indian Medical Council. The Indian Medical Association is well aware of the opinion of the profes-

sion on these questions, and it may be taken that it is also the opinion of the Association as evidenced by the presidential speeches of every conference for the last eleven years. Yet resolutions on these subjects were passed this year with great lugubriousness, with tender affection to the Government for small mercies, and with no strong determination to build the future aright.

The resolution on medical education is a mere makeshift affair without in any way indicating openly the exact position of the Association on this subject. What are the improvements which the provincial governments have made in the standard of medical school education to elicit the thanks of the conference and, therefore, of the Indian Medical Profession? There is none to our knowledge, except that the Madras Government have abolished its medical Schools, and that the U. P. and the Punjab Medical Schools are just in the offing without a definite programme; while Bengal has got nine medical schools without any improvements in their educational standards, and the Bombay's ex-Minister of Health did not translate his promise made full one year before the Bombay Cabinet's resignation to convert the Poona and Ahmedabad medical schools into medical colleges. Yet this resolution conveys comprehensive thanks to all the provincial governments for reforms which many of them have not effected and when most of them are well-known to be against the one-portal system of medical education advocated by the constituent branches of the Indian Medical Association, and the All-India Medical Licentiate's Association. This was a resolution passed merely to please Dr. Jivraj N. Mehta who sponsored it and who wanted everybody to share his sense of joy and duty of praising governments for nothing more than thinking of doing something in the unknown future.

The resolution congratulating the Government of the Central Provinces for resurrecting the ghost of the C. P. Medical Registration Act of 1916 is another melancholy mater-piece of Dr. Jivraj N. Mehta. It was argued that this exhumation was needed to get one more non-official member for the Indian Medical Council and the same argument was pressed in support for the creation of similar provincial medical councils in such of the provinces now without them. It means, in effect, that our leaders are prepared to sacrifice professed principles for the sake of puerile expediences, in spite of the fact that everyone of them know and realise that the Provincial Medical Registration Acts passed in between the years 1912

and 1918 are utterly unsuited to our conditions in this year of Grace, and that the Indian Medical Council, as now constituted, is not worthwhile to perpetuate.

The resolution on the Indian Medical Council, as passed by the Conference, was entirely different from the one given notice of by Dr. Krishnamurthy of the Vizag. Branch. His original resolution demanded that the members of the Indian Medical Association who are members of the Indian Medical Council should sponsor a resolution in the Council itself recommending such amendments as were frequently urged by the Indian Medical Association itself, and that they should resign should the Government of India refuse to accept the same. This has been watered down in the subjects committee by petty shifts and manoeuvres of the cloak-room medical politicians who have the upper-hand in the Indian Medical Association and who showed a disgusting earnestness to grab places in the Indian Medical Council. So Dr. Krishnamurthy's resolution was modified as a compromise between the conscience of the conference and the conscience of some of our leaders, and the result was a pious suggestion to the Indian Medical Council and the Indian Medical Association to do the needful as early as possible.

Thus it may be seen that the conference was afraid to speak the truth boldly, and whoever voiced the truth in that conference was hushed by the imperious voice of expediency and the obstreperous interference of vested interests. It was not a conference under the elected leadership of Drs. Daulat Ram and Bhupal Singh but under the self-imposed leadership of Dr. Jivraj N. Mehta who was the author of ninety per cent of the resolutions passed and who would not agree to the free passage of the rest of the ten per cent of the resolutions without his modifications.

The Conference would have produced a great impression and created a strong urge for action among the members of the profession if it had simply passed one single resolution confirming the pronouncements so truthfully and so feelingly expressed by Dr. Bhupal Singh in his presidential address, leaving the ways and means of how to attain them to be settled by the House in terms of suitable resolutions. There is a precedent for such a procedure in the American Medical Association, where the presidential address of its annual session is submitted to a small committee of elected representatives to be confirmed, often without any modifications

whatsoever, as the authorised opinion of the American Medical Association on the subjects dealt with by the President. This Committee, after such a confirmation, frames resolutions embodying the methods of work to be adopted in fulfilment of presidential utterance. If such a procedure has been adopted in the case of Dr. Bhupal Singh's address, the profession would have been grateful to his advocacy and the Government would have known what the Indian Medical Association really wants. As it is, the resolutions of the conference, particularly those concerning many topical subjects, are at variance with the presidential address both in tone and substance, have not truly voiced the demands of the profession, and in reality have blown hot and cold in the same breath.

Lahore Conference, it seems to us, is not the voice of the Indian Medical Association, nor that of those gathered under its auspices. It was the voice of Dr. Jivraj N. Mehta, his intriguing eloquence, logic and convenience, that ran like a twisted string through all the feeble spirited resolutions that were passed ostensibly in the name of the Indian Medical Profession.

When will the Association free itself from the incubus of vested interests and truly reflect the soul of the profession was the anxious and questioning whisper we heard at the delegates' camp.

Control of Leprosy

Control of leprosy in India has always been a difficult problem due to low economic and nutritional condition of the people, and the tardy growth and enforcement of public health measures. These difficulties are heightened by the unfortunate fact that none of the provincial governments have a definite policy in the matter of leprosy control. They sit on the fence patting and praising the various voluntary associations, particularly the Indian Branches of the British Empire Leprosy Relief Association. Isaac Santra points elsewhere in this issue to what is obviously forgotten by the Government that these associations are no more than mere relief associations and that while they can help they are yet by no means in a position to lay out a definite programme and carry it successfully through. It is indeed ridiculous that the Government should abdicate its work to missionary bodies and such other voluntary organisations, and lay unction to its soul that it is doing its duty by occasional or recurring grants-in-aid to voluntary bodies engaged in leprosy work.

Medical Supplies

Although medical supplies in our country during the present war are not so insufficient and irregular as in the last war owing to the growth and expansion of indigenous pharmaceutical and chemical industries, none the less it is true that we are still handicapped in more ways than one. Both the Government and the industrialists have not used the inter-war period for developing the production of basic chemicals such as alkalies, acids, solvents iodine, bromine etc., required by drug industry and for finding out indigenous substitutes to replace organic or inorganic drugs which cannot be obtained in our country. The result is that while we have the talent and equipment to manufacture essential medical requirements we have to depend on raw materials from foreign countries which owing to the present war are not easily available.

The drug industry in India never had the serious and earnest help of the Central or Provincial Governments. The invidious excise regulations and the railway freight which the House of Alembic on behalf of the pharmaceutical industry have been protesting against for the last 15 years; the facility with which cheap and low-standard imported drugs were allowed to reach our country and compete unfairly; and the amazing inaction of the Government in giving effect to at least the important recommendations of the 1930 Drug Enquiry Committee have barnacled effectively the progress and growth of indigenous enterprises. And if the current medical supplies have not entirely failed during this war, the credit is almost entirely due to the enterprising medical industrialists of our country, and very little to the Government.

That this is true will be evident from the speech, published elsewhere, of Col. R. N. Chopra which he delivered on this subject at the All-India Conference of Chemical and Pharmaceutical manufacturers in November last at Calcutta. His review of the present position of drug industry in India and his suggestions for putting it on a sound, economic and national basis are worth the attention of both the Central and Provincial Governments. It is staggering to learn that there has been 259.34 lakhs of rupees worth of imported drugs in India during 1936-37, and that our country is to-day capable of meeting only a third of our drug requirements. Even for the supply of quinine and cod-liver oil we have to depend on foreign imports and pay a heavy price for obtaining the same. We are entirely helpless in the matter of supply of synthetic drugs.

We are not at all decrying the excellent work done by various Leprosy Associations and Committees in the different areas of our country. They have certainly done well, but they lack co-ordination, definite policy and central control. This point is well brought out by Isaac Santra, and he instances the different outlook between the asylum leprosy officer and the field worker. The former thinks that "the kind of institution in which he works should be extended and multiplied" while the latter lays stress on "the wider aspect of the problem and divert public opinion to the fulfilment of an effective and popular anti-leprosy campaign" based on regional surveys and conditions. The result is that different emphasis is laid on things that do really matter in the effective control of leprosy; and money and energy spent without corresponding result.

It is inconceivable that our country can get rid of leprosy by the mere work of voluntary associations without the provincial governments taking up their full responsibility in the matter of both relief and control of leprosy. The work is so vast and the money required for this work is so great that unless the provincial governments create their own leprosy organisations and work them with their own officers the disease is not likely to be eradicated in any near future. There is no reason why they should fight shy of taking up this duty as an important item in their public health and medical relief programme. Voluntary associations can supplement but cannot substitute the governmental organization of leprosy relief and control. Otherwise it will be but tinkering with the problem of leprosy control in India.

We know now enough of leprosy: the nature and spread of infection, the drugs that relieve the symptoms and the methods of control against its spread. We have also before us the experience of other countries in these matters. What is therefore now required is sound, effective and extensive organisation by the Provincial Governments with a definite and orderly programme and policy of leprosy relief and control. A separate leprosy research department should also be created, and leprosy survey should be in charge of this department, apart from its other duties.

Time has now come that leprosy relief and control should not be made to depend on the small resources and diverging policy and work of voluntary associations. The provincial Governments should take up this work in right earnest, declare their policy and work out their programme without any undue delay.

CURRENT COMMENTS

Chemotherapy of Filarial Infection

Chopra and Sundar Rao¹ have published their investigations with a large number of drugs of chemotherapeutic origin in the treatment of filarial infection. It has already been established that the treatment of filarial infection should aim at two things: destruction of the filarial parasite and eradication of secondary infection with strepto and staphylococci which cause acute or chronic lymphangitis. Nearly 72 drugs have been tried by the authors but most of them have given only poor results. Soamin, however, gave some satisfactory results in controlling the infection at the early stage though it had no lethal action on the parasite. Fouadin was found to sterilize the parasite temporarily. But none of the synthetic drugs gave any positive result except that sulphanilamide and its derivatives were found valuable in the treatment of secondary infections, what was once obtained before by mixed vaccine or serum. The authors therefore conclude that the only successful method of dealing with the disease is by preventive measures against the carrier mosquito. We agree, and we hope that such measures would be undertaken in the now known endemic areas of this disease. Filaria is certainly not a fatal disease but the chronic invalidism it causes is so great and extensive that energetic measures are called for more in its prevention than in its cure.

¹Ind. Jour. Med. Res., October 1939, Pp. 549-562.

Even cat-gut is not manufactured in India, not to say of essential surgical instruments and other accessories.

Our country must learn a lesson and the Government should realise their duties and responsibilities in the matter of medical supplies and related industries. Encouragement of private enterprises by well-known methods of governmental help, such as financial aid and protection against foreign competition, must be forthcoming from the powers-that-be if our country is to be made self-supporting as far as possible in the not too unimportant problem of medical supplies both during peace and war times. We hope that the lesson of to-day will not be forgotten tomorrow.

Calcium Lactate for Indian Children

Aykroyd and Krishnan² have again confirmed the nutritive value of South Indian diet by the addition of calcium lactate, and the present investigations show that skimmed milk is a good substitute for calcium lactate. Their results indicate that both weight and height increments in both the calcium lactate and skimmed milk groups were definitely greater than in the control groups and that the general condition of the children receiving skimmed milk showed greater improvement than of those in the calcium lactate group. These observations are indeed of practical interest to the practitioners. Since however it is not possible to distribute calcium lactate to children on an extensive scale, and since the Indians are not accustomed to take skimmed milk, it is better that we advocate the addition of whole milk to make up the poor South-Indian dietary. And if skimmed milk is available and given for the sake of cheapness, let it not be imported skimmed milk which Aykroyd once recommended so vehemently.

Complement Fixation Test in Skin Tuberculosis

It is well known that there is a positive complement fixation in active pulmonary tuberculosis and this may be confirmed by a high percentage of positive results by sputum examination. That the same is not the case in skin tuberculosis is pointed out by Maplestone and Punja³, and the explanation offered by them is that tubercle bacilli is neither so active nor numerous in skin tuberculosis as in the pulmonary, and that any variation in the different types of tuberculous disease of the skin, as in verrucosa cutis and lupus vulgaris, is due to the relative difference in number, activity and virulence of the bacilli in these types. The authors therefore conclude rightly that the complement fixation test is not of practical value in the diagnosis of cutaneous tuberculosis.

M. & B. 693 in Malaria

There has been a plentiful crop of literature during the last two years dealing extensively with researches and clinical application of sulphanilamide and its derivatives in a legion of diseases of bacterial and protozoal origin, apart from streptococcal infection to which was originally applied the first discovery of

² Ibid., Pp. 409-412.

³ Ibid., Pp. 581-588.

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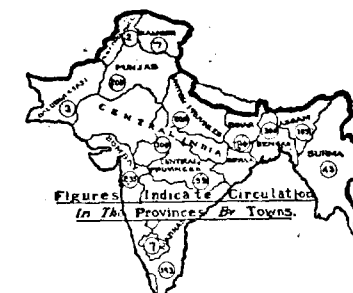
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prontosil by Dogmak. The jump from the bacterial to the protozoal with the magic drug on one hand and the hope of curing many of the ills of mankind on the other, was inevitable. Thus one would find that even malaria has fallen an unwilling victim to sulphanilamide. Chopra and others⁴ have now come with their latest observation as to the efficacy of M. & B. 693 in Indian strains of malaria. They find that it has a definite action on the malarial parasites although mild; that in 4 gm. daily doses it causes the disappearance of malarial parasites from the peripheral blood and controls the symptoms of the disease; and that it destroys both the asexual and sexual forms of *P. Vivax* and the asexual forms only of *P. falciparum*. They therefore conclude that this drug is worth a trial when other anti-malarial drugs are not available or are contra-indicated. It is true that Atebrin and Plasmoquin are not available today, but we have got grave doubts whether any derivative of sulphanilamide is likely to become an effective substitute of quinine or atebrin and plasmoquin. And we are one of those who firmly believe that an extended use of sulphanilamide in all and sundry diseases for which definite and specific treatment is already known to have given reasonably reliable results is no more than mere extravagant therapeutics.

The Suggested Indian College of Surgeons

Lt.-Col. K. G. Pandalai has suggested in his presidential address to the Second Annual Conference of the Association of Surgeons of India, held at Madras on the 28th December 1939, an early establishment of an Indian College of Surgeons on the model of the Royal College of Surgeons of England with a view to train young surgeons in the art and science of surgery and to confer on them a diploma in advanced surgery. We do not at all share this view, because there is already the M. S. degree of the University which, we hope, Col. Pandalai would not dispute as not equivalent to, if not better than, the F. R. C. S. diploma of London. Duplication of degrees and diplomas, as is unfortunately prevalent in the United Kingdom, has no imitator in any other country, and we should not therefore blindly imitate the British Model. Even in England, there is already a loud complaint against the confusing multiplicity of medical and surgical degrees and diplomas, and the British medical profession could not get rid of them in favour of one portal system of medical education, ordinary as well as

specialistic, owing to long-established and therefore resistant traditions. Our country's need is periodical post-graduate training for both general practitioners and specialists, and we require for this purpose a number of hospitals or clinics which would provide such a post-graduate course. Except the Provincial Universities, no other body should be given the statutory competence to confer special diplomas or degrees. The duty of the latter should be to teach and train, and not to confer diplomas in imitation of the United Kingdom which is not even followed in other countries in the Western continent. If the Association of Surgeons of India confines its activities to encourage post-graduate specialist teaching and training it would be discharging satisfactorily its great duty to the profession, but if it misdirects its youthful energies towards creation of specialist diplomas, other than the broad and comprehensive degrees of M.B., M.D., and M. S. of the Indian Universities, it would merely create confusion in the already confounded ranks of the profession. What we should aim at is not the acquisition *ad libitum* of specialist degrees and diplomas conferred by this academic association or that, but to provide a training ground for gathering experience under masters who would be able to impart sound and advanced knowledge in surgery or other speciality.

Besides, medical education in India today is in a very rough-hewn condition. There is a foreign Government which has no definite policy in this matter and lacks enthusiasm to plan boldly. The politics of the country are also unsettled and our leaders have no time to sit in deliberation over these matters. The Indian Medical profession is handicapped by all kinds of obstacles from within and without. It has very little of the statutory rights and privileges enjoyed by medical men in free countries. Under these circumstances, imitation of any Western model, even under a strong urge of necessity, is bound to create unnecessary conflict and stem the progress of medicine and surgery in our country.

The 30th Conference of the All-India Medical Licentiates' Association will be held at Ahmedabad during Christmas Week 1940. The date and programme of the Conference will be announced in due course.

⁴ Ind. Med. Gaz., Nov. 39, P. 658.

SPECIAL ARTICLE

Medical Supplies in India *

● Col. R. N. Chopra, Director, School of Tropical Medicine, Calcutta

In the first instance, I must thank you very much for the honour you have done me in asking me to open this conference today. It is an honour which I deeply appreciate and I have hurried back from New Delhi where I had gone to attend a conference convened by the Government of India in connection with the supply of drugs. Ever since I was a student of medicine, I have been keenly interested in medicinal drugs and their manufacture and distribution which are a part of the activities of your Association. During the thirty years of medical practice in India, I have come into contact with the realities of the problem of drug supply to the people of this country and this interest has considerably increased.

DEMAND FOR CHEAP MEDICINE

As Chairman of the Drugs Enquiry Committee, I realised that the root cause of the traffic in adulterated drugs is traceable on ultimate analysis, to the demand by the people of this country, whose economic condition is low, for cheap medicines. The Western system of medicine, is extending rapidly among the masses, and with it the use of medicinal drugs is going ahead. As many cannot afford to buy good quality of drugs on account of their high price, the demand and sale of cheap drugs of poor quality and strength has been flourishing. Some of the unscrupulous manufacturers and dealers have not been slow to exploit this demand and in the absence of restrictive laws a certain class of manufacturers and dealers, both in India and abroad, have been successfully flooding the market with inferior products. The only remedy for this state of affairs lies in the organisation of the drug industry in our country. It is only then that we will be able to satisfy the conditions which might be prescribed by a properly considered drug control legislation, to put on the market standard goods which the people need, and which would suit their purchasing capacity. There is no doubt in my mind about the interdependence of the question of manufacture of drugs and that of ensuring the supply of pure medicinal preparations of proper standard at prices commensurate with the means of the people.

In the Report of the Drugs Enquiry Committee (1930-31), the difficulties of the local manufacturers in the country were fully discussed. The evidence disclosed the various disadvantages from

*Being a lecture delivered at the All-India Conference of Chemical & Pharmaceutical Manufacturers, Calcutta, during Nov. 1939.

which they suffered and which have hindered the progress. The diversity of excise regulations for spirituous preparations was referred to and during recent years there has been a certain amount of improvement in this direction. The difficulties of getting crude vegetable drugs have also decreased during recent years. Progress, I believe, has been made in connection with the high railway freight for transportation of raw materials and medicines manufactured in India. The greatest difficulty of the manufacturers is competition with dealers who are importing cheap drugs of low standard and with small manufacturers in this country who are purposely turning out inferior products. The proposed legislation in the form of a Control Drug Bill which will be enacted in the near future, I have no doubt, will put an end to this state of affairs. Taking everything into consideration, the drug industry in India stands on a very much firmer ground and under more favourable conditions than even a decade ago. The manufacturers of drugs are, therefore, now in a very much better position to cope with the conditions which have been created by the present war than they were in 1914 and during the period of the Great War.

PRESENT STATE OF DRUG INDUSTRY

Let us now examine what is the position with regard to the manufacture of medicinal preparations at the present time in India. Although no reliable statistics are available, from the knowledge I have of the drug industry in India, I have reason to believe that medicinal drugs manufactured in this country, at the present time may be estimated at anything not less than 30 to 40 per cent or more, of those imported, i.e., of the total figure 259'34 lacs of imports as shown by the Sea Borne Trade Returns of British India during 1936-37. They are probably less than a dozen of the larger firms of drug manufacturers in this country who turn out medicinal preparations on a large scale. Most of them manufacture medicinal drugs, pharmacopoeial and otherwise, proprietary preparations, and toilet products in many cases from basic material largely imported from abroad. So far as basic chemicals are concerned, the produce at present is mainly confined to small quantities of acids and a few of the common chemicals. Attempts are, however, being made to improve this state of affairs and start manufacture of heavy chemicals such as alkalis, acids, chlorine products, etc., in India but so far as I know these schemes have not fully matured, for this reason that for most of these products at present we have to depend on import from abroad. Some Indian firms have lately started the manufacture of patent foods but much remains to be accomplished before we achieve the standard of some of the imported products. Even such essential product as glucose has not yet been manufactured in this country.

Besides these large firms, there are a very large number of small firms, some of which manufacture standard products, but most of them turn out preparations which, in many cases, are not above

suspicion. Some import products in bulk from concerns of doubtful reputation abroad, bottle them and sell them to the public. Others obtain concentrated extracts and dilute and label them with their names before sale. The capital of all the drug manufacturing concerns in India, large and small, put together would not amount to much more than 60 or 70 lacs of rupees. In the absence of any drug control, all these manufacturers appear to be making handsome profits in spite of the fact that many are poorly equipped and inefficiently staffed.

DRUG INDUSTRY IN WAR TIME

The outbreak of war and the difficulties of getting regular supplies of drugs and essential medicinal chemicals have profoundly affected the drug market in this country. This is natural as India has been and still is largely an importing country in the matter of her supply of drugs. While large proportion of the drug imports come from the United Kingdom, considerable quantities of these and certain basic chemicals necessary for drug manufacture came from Germany and other foreign countries. As a great proportion of these have been, for the time being, cut off it is important to see how these could be replaced (1) by manufacture in this country, and (2) where this is not possible by imports from the United Kingdom and neutral countries.

So far as the possibility of manufacture of India's drug requirement in India is concerned, it can now be said with confidence that the indigenous drug industry has progressed considerably and is now on a much firmer ground and in a position to supply a large number of the drugs and other medical supplies in common use. It is to be greatly regretted that for many of the essential basic chemicals, solvents and synthetic remedies, India has still to be dependent on supplies from abroad.

A REVIEW OF INDIA'S POSITION WITH REGARD TO DRUG SUPPLY

The drug industry in this country may be classified under five headings:—

1. Manufacture of Pharmaceutical Preparations, Essential Oils, Fixed Oils, etc.

So far as the drugs of vegetable origin are concerned, India is fortunately in a much better position than many other countries of the world. India has a wonderful range of materia medica and nearly three-fourths of the drugs mentioned in the British and other pharmacopoeias grow here in a state of nature or have been cultivated. Where the pharmacopoeial species do not grow, allied species are available which may be used as substitutes. If our resources are properly husbanded and conserved, India could not only be completely self-supporting in this respect but may also be in a position to supply the rest of the Empire all the raw products that will be needed in the preparations of pharmaceuticals. At present, Great Britain draws a fairly large supply of crude

drugs from mid-Europe, particularly from areas which are now under German influence. These will presumably be cut off to a large extent and Indian sources may be of use in meeting such deficiencies as might occur.

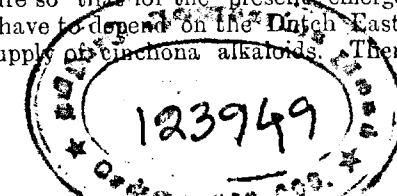
Essential Oils.—With regard to essential oils India has the *basic materials* from which ajowan, caraway, chenopodium, cinnamon, coriander, cardamom, rose, sandal wood, turpentine, etc., can be produced but she had to import others chiefly from Central European countries. With the exception of sandal wood oil, essential oils have not hitherto been distilled in large quantities on proper scientific lines in India but there is no doubt that this industry can be easily and successfully developed in a very short time.

Fixed Oils.—Almost all the fixed oils used in medicine such as almond oil, arachis oil, castor oil, hydnocarpus oil and oils of linseed and sesame are available in India. Olive oil may be easily replaced by arachis oil. Purified medicinal castor oil is now imported as cold drawn oil and is seldom manufactured in India, though ordinary oil used in hospitals and dispensaries is produced in this country. There could be no difficulty in preparing the purified oil used in medicine in sufficient quantities for the needs of India and the Empire.

2. Manufacture of Alkaloids and other Active Principles from Vegetable Drugs

Alkaloids, etc.—Of these alkaloids commonly employed in therapeutics, India can produce atropine and its salts, caffeine and its derivatives, emetine, ephedrine, morphine, codeine, quinine, strychnine, etc. Strychnine is already being manufactured in large quantities and is exported to Australia. Caffeine can be manufactured if tea fluff (dust) is made available to the bonafide drug manufacturers by the Indian Tea Association at a reasonable price. Morphine and its derivatives including codeine are being produced at the Ghazipur Opium Factory. Large supplies of ephedra and belladonna are available and ephedrine and atropine can be produced in almost any quantity. Some of these industries could not develop during peace time owing to keen foreign competition and high prices of the solvents which have to be used.

For quinine, India as the rest of the world will have to depend on the Dutch East Indies for some time to come. India produces a limited quantity of cinchona alkaloids. Between the two plantations at Mungpoo (Sikkim, Himalaya) and Nadavatrur (Nilgiris), roughly between 65,000 to 70,000 pounds of cinchona alkaloids are produced every year. The total requirements of India at the present time are over 200,000 pounds so that over 100,000 pounds at least has to be imported from Dutch East Indies. I have on many occasions urged the extension of Indian plantations, but cinchona plantations take seven to eight years to mature so that for the present emergency India will have to depend on the Dutch East Indies for its supply of cinchona alkaloids. There could be



no great difficulty at present to ensure this supply as this zone is free from war risks.

Ipecacuanha is also being grown in Mungpoo but the supply is small and not commensurate with the demands. This plantation can easily be enlarged and in the meantime the supplies may be procured from the Federated Malay States where it grows extremely well. Artemesias grow in Kashmir and in the Kurrum valley, and santonin is manufactured in Kashmir on a large scale and is exported to different parts of the world. Large quantities of other products such as podophyllum resin, colocynth, etc. are available.

3. Manufacture of Inorganic and Organic Chemicals used in Medicine

Inorganic Drugs.—The important inorganic drugs used in medical practice are: boric acid, hypo-phosphorus acid, salts of ammonium (chloride and carbonate), potassium (iodide, bromide, chlorate, citrate, permanganate), sodium (benzoate, bromide, bicarbonate, citrate, tartarate, iodide, phosphate, salicylate), magnesium (carbonate, oxide, sulphate). For almost all of these, India depends on foreign supplies at the present time. Apart from alkalis and acids, the most important items required are iodine and bromine. So far as iodine is concerned there is the possibility of securing it from Japan. If Great Britain revives the Scottish Kelp Industry during the war emergency, there is also the possibility of getting at least a partial supply from this source. Bromine will be more difficult and special measures will have to be devised to secure it. Some of the above named inorganic drugs are already being manufactured in India but their manufacture entirely depends upon the supply of certain essential basic chemicals and solvents from abroad. Every effort should be made to encourage the production of the basic material in the country.

Special Organic Drugs.—Practically without exception all of the special organic drugs have to be imported at present. The chief source of many of these, such as acetone, acetic acid, acetylsalicylic acid, benzol, benzoic acid, citric acid and lactic acid, oleic, tartaric, trichloroacetic acids, ether, ethyl chloride, chloral hydrate, chloroform, hexamine, glycerine, amyl nitrate, urea, lactose, was from Germany, though some of these were also obtained from the United Kingdom and the United States of America. Some of these have been and can be manufactured under emergency conditions in India provided steps are taken to supply basic chemicals and solvents.

Metals and Organo-metallic Compounds.—For all preparations, such as gold salts, silver compounds, inorganic preparations of mercury (mercurous and mercuric chloride, mercuric iodide), inorganic arsenicals (arsenic tri-iodide and trioxide), inorganic bismuth compounds (bismuth carbonate and salicylate) and lead compounds (lead subacetate), India is entirely dependent on foreign supplies at the present time. Many of these compounds could easily be manufactured. Copper

salts (sulphate) can be prepared from Indian copper, while zinc, antimony and lead, can be made available from Burma.

Organo-metallic compounds of gold (solganol, sanacrysin, etc); silver (argyrol, protargol, etc), mercury (novasol, salyrgan, mercurochrome, etc), arsenic (neoarsphenamine, sulpharsphenamin, stovarsol, carbarsone, tryparsamide etc), antimony (ureastibamine group, neostibosan group, stibamine glucoside, etc.) are mostly imported at present. Bismuth (trepol, bismutol, bistoval, etc.), organic compounds of arsenic, antimony and bismuth have been successfully prepared in India and if research is properly organized most of these compounds could be prepared in the country. Reserve stocks held in India may be sufficient for the needs of the immediate future but in case of a prolonged war supplies for the population of the country should be ensured and this can only be done by encouraging local manufacture.

4. Manufacture of Biological Products including Sera, Vaccines, Gland Products, etc. Vitamins and Food Preparations

Glandular Products including Liver Extracts.—There should not be any great difficulty for the supply of these products from the U. S. A. but many of these can be manufactured in India provided the slaughter-houses are run properly and the dissection and separation of fresh glands are done under expert supervision. The question of solvents is also of prime importance in this connection. One or two of the manufacturing houses in Calcutta have produced thyroid, adrenal and posterior pituitary preparations. Some of these have been tested in the Biochemical Standardization Laboratory and have given satisfactory results. There is little doubt, however, that quite a large proportion of India's requirements in these glandular preparations and of products such as testicular and ovarian preparations, insulin, corpus luteum preparations, etc., are at present obtained from abroad. Within the last few years, sex gland preparations are being produced synthetically and are in large demand. Their therapeutic uses are still largely experimental and even if they are cut off, not much difficulty is likely to be experienced. Liver extracts both for oral use and injectable forms can be and are actually being prepared in India.

Vitamin Preparations, Patent Foods and Irradiated Milk Foods and Cereal Products.—Vitamin preparations have now established themselves in therapeutics and are being prescribed by a large number of practitioners. Pure vitamin preparations which are largely of synthetic origin are imported and will be difficult to get during war-time. The want of these preparations can be largely met by giving natural vitamin-rich foods in suitable quantities.

Cod liver oil is an important imported product and will probably be largely withdrawn due to shipping difficulties. I have no doubt that it can be replaced by fish liver oils of India, some of

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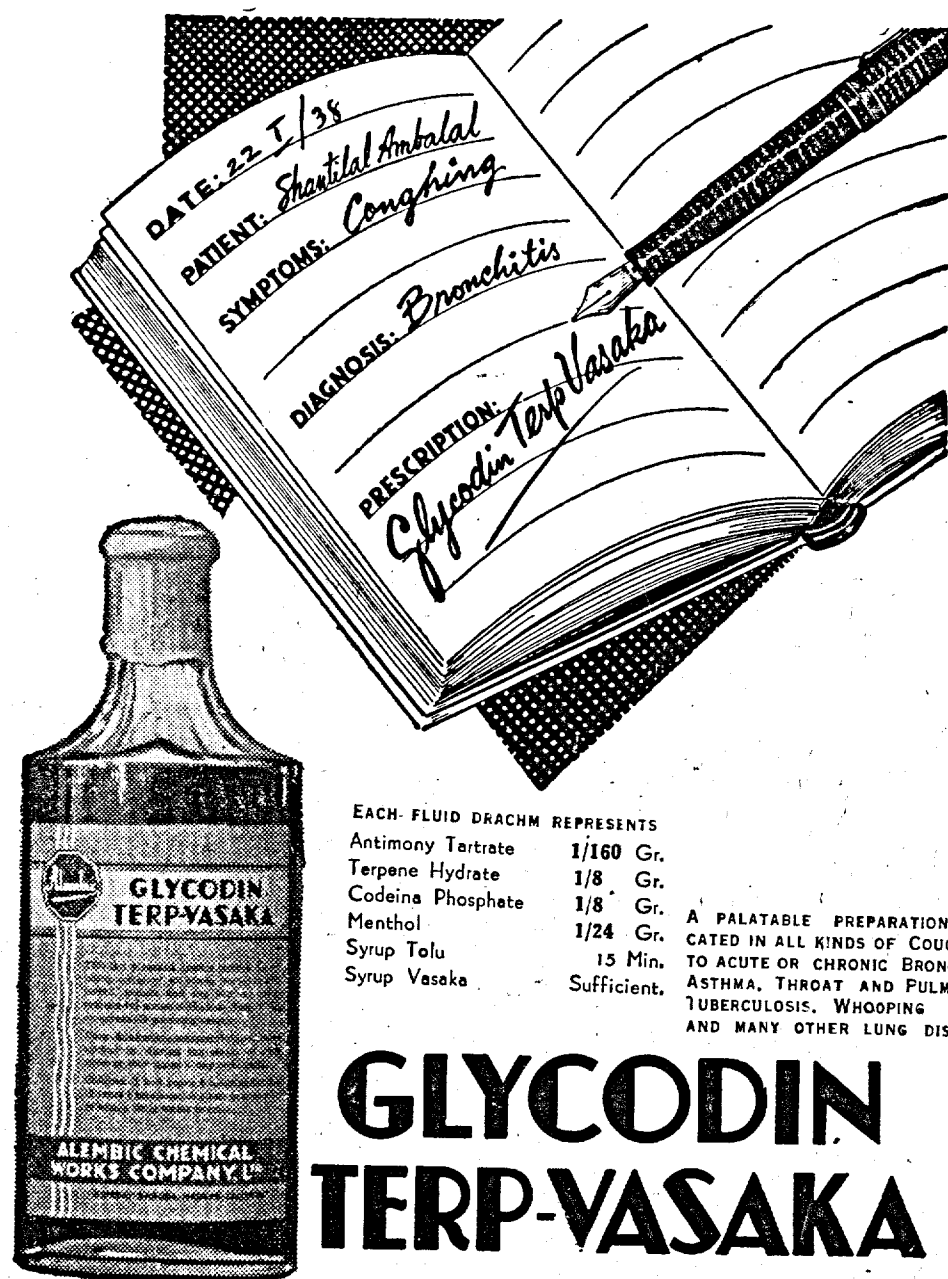
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which have a high vitamin content if a little more research is carried out in this direction.

Some patent foods and irradiated milk foods are important accessories to medical treatment. These are all imported but fortunately a large quantity of these are obtained from Great Britain and therefore, at least a partial supply will be possible.

Biological Products.—Prophylactic and curative sera of all types are being manufactured in India. If the quality of these is controlled by proper standardisation, this source could easily be developed to meet all the Indian demands. For this, International standards (toxins, antigens, antitoxins, etc.) have to be regularly supplied to the manufacturers.

Vaccines of all types can also be manufactured.

5. *Surgical Dressing, Disinfecting Fluids, etc.*

Absorbant cotton, gauze, jute, lint, bandages, etc., are being manufactured and no difficulty need be apprehended.

Disinfecting fluids of the type of phenol, cresol, etc., are being prepared in very small quantities from coal tar distillation but their manufacture can be quickly extended.

REQUIREMENT OF DRUG MANUFACTURERS AND DIFFICULTIES IN PROCURING SUPPLIES

I may here briefly refer to some of the difficulties of the manufacturers in connection with obtaining of supplies of materials used in the manufacture of medicinal preparations under the conditions which have arisen on account of the outbreak of war.

A critical analysis of the situation convinces me, that the chief difficulty lies in the fact that India does not at present possess facilities for producing certain essential basic materials, such for example, as alkalies, acids, solvents, phenol, aniline, iodine, bromine, urea, etc., which may be considered as the keystones of the drug manufacturing industry. In case of some of these, the country lacks the natural resources of the materials that are necessary, but in most cases these materials are dependent on the growth of other associated industries which are non-existent in India at present. I may here give a few examples:—

(a) *Mineral Acids.*—Sulphuric acid is the key substance used in the production of many pharmaceutical preparations, as besides being used in the manufacture of alum, sulphates of magnesium sodium, ammonium and iron, it has other important applications. Its manufacture is at present entirely dependent on the supply of sulphur which is derived from Japan, Italy and America. The consignments from the two former countries have recently ceased, and difficulty has been experienced by some firms in obtaining sulphur. Supplies are, however, maintained from America and no serious shortage need be apprehended. The chief source of sulphur in this country is from iron and copper pyrites of which large supplies are available in Behar and some are even free from

arsenic. Attempts are being made to utilise these in the preparation of sulphuric acid.

If sulphuric acid can be produced other mineral acids can be readily manufactured.

(b) *Alkalies and Chlorine and its Derivatives.*—The manufacture of alkalies—soda ash, potash, caustic soda and caustic potash—is poorly developed in India and almost the entire supply is being imported from abroad. It is a matter of satisfaction to note that attempts are being made to develop the manufacture of both these groups of important chemicals in India and when this is accomplished a great forward step will be taken in the development of drug and other industries in this country.

(c) *Organic Acids.*—Almost all organic acids are imported at present and are converted into salts used in pharmacy. Citric acid can be produced in limited quantities from limes and lemons and tartaric acid from tamarind, and this was actually done during the Great War. It would be possible to produce salicylic acid from oil of wintergreen (from *Gaultheria fragrantissima*) and benzoic acid from gum benzene.

(d) *Solvents.*—With the exception of alcohol, practically no other solvents are being produced on any large scale in this country. This has been attributed to the high excise duty in the case of some of them. Benzol or commercial benzene is in considerable demand, but so far, for various reasons, it has been isolated only by a few firms. This is going to be taken up on a large scale by some of the iron and steel manufacturing firms, but it may take a year or two before the plants are set up and begin to function. Ether is now being produced in India and it should not be difficult to produce petroleum either which is largely used in the preparation of many galenicals and which so far has been imported. Chloroform can be manufactured in any quantity if chlorine or bleaching powder is available.

(e) *Other Substances.*—These are only but a few examples. Many more of chemical compounds of arsenic, antimony, bismuth, phosphorus, etc., camphor, ureas, aniline, which are mostly being imported at present and which could be manufactured in this country could be cited.

Gentlemen, I have however already taken much of your valuable time, but if I have succeeded in putting before you briefly some of the aspects of drug industry in India as they have existed and as they are altered by the outbreak of the war, I feel that a great deal of good will be done. I have just returned from New Delhi after attending an informal conference at which representatives of drug manufacturers, importers, wholesale dealers and officials of the Commerce, Supply and Medical Departments of the Government of India participated. The object of the Conference which was presided over by Major General Jolly, Director-General, Indian Medical Service was to ensure the supply of drugs to the people during the war. The impression I have carried is that all the different departments of the Government of India

were only too willing to help every one concerned in solving the difficulties which have arisen and which are likely to arise on account of present situation. All they need is a representative organisation of the different interests concerned with the manufacture, import and sale of drugs and which would be authorised to deal with the supply department in connection with any difficulties that may arise. This is exactly what is wanted and it is the obvious duty of an Association such as this to help in setting up an organisation which will not only deal with the Government but will take up the question of drug manufacture in India on proper scientific and business lines. I said in the beginning that the root cause of trade in superior and low standard drugs in this country is the demand by the people for drugs which they can afford to pay for.

I feel certain that if you put your house in order you could accomplish this. The present is a very opportune time to extend the drug manufacturing industry and put it on a solid basis. Now that the imports of a number of basic substances have been stopped it is up to you to devise ways and means to find them locally. India is a country with tremendous resources and I feel certain that a thorough investigation of the possibilities of obtaining basic material in the country will enable you to get most of what is wanted. The help of the Government will always be available to get materials which are not available from abroad and by this means the drug industry can be developed on sound lines and the supply of essential drugs will be assured at prices commensurate with their means during the period of the war and ever afterwards.

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FOREIGN MEDICAL NEWS

Our London Letter

(From a Special Correspondent)

BRITISH MEDICAL SERVICES—WAR-TIME REORGANISATION AND IMPROVEMENTS

British medical services, before the war, had a world-famous reputation. It is possible that war-time reorganisation may be responsible for permanent improvements which will maintain and increase that reputation.

Formerly, British hospital services were of two kinds:—voluntary and municipal. There were 900 of the former and 1800 of the latter.

The voluntary hospitals were started by charity contributions, and in many cases were not allowed by the terms of their foundation to charge fees. They often specialised in some particular form of complaint, such as those associated with the eyes; with ears, nose and throat; or the chest. In addition they were directed by leading specialists in these complaints who were able to obtain private practice as well as prestige from such appointments.

The municipal hospitals, on the other hand, were maintained by local taxation and had full-time staffs. The doctors were paid comparatively low salaries £350 to £500 a year—much below what a specialist would have to earn in order to maintain his consulting rooms.

The support given to voluntary hospitals was magnificent, but for some years before the war this system had been working with difficulty. As the number of voluntary hospitals increased, so automatically did the number of specialists in Harley Street, the famous thoroughfare in which the majority of great specialists have their consulting rooms, gradually become overcrowded. The prospects for the specialist also decreased. Moreover, as the voluntary hospital services improved, the middle classes (who could not afford to pay a specialist) were more willing than ever to enter the public wards of the voluntary hospital where the hospital specialist worked, rather than go to a private nursing home.

This also increased considerably the voluntary hospital expenses. For these reasons it was possible that the voluntary system might soon have broken down in any case, and that a good deal of hardship may have arisen from the resulting dislocation.

But at the outbreak of war, the British Ministry of Health took over both the municipal and the voluntary hospitals in order to provide the 300,000 beds necessary for possible air-raid casualties. The Ministry is now paying the doctors (many of them specialists) as well as maintaining the voluntary hospitals. The immediate future of these institutions seems secure, and it is difficult to believe that when the war is over they will return to the old haphazard system of relying on voluntary contributions.

But State support for the voluntary hospitals is only one of the advantages which war has brought.

Under the old system, the specialized hospitals were crowded into London without regard for the needs of the rest of the country. This fault has now been corrected by dividing Britain into eleven regions, each with a centre that can become the centre of a peace-time medical service.

Another advantage under the new system is that the big hospitals have only small casualty clearing stations in London, the main base hospitals being out in the country. Obviously a hospital in the country can be more spacious, more restful for the patients, and cheaper than one in town. What far-seeing doctors have been striving to attain for years, the British Ministry of Health have accomplished in a few weeks.

Our American Letter

(From Our New York Correspondent)

TASKS AHEAD FOR MEDICINE

In carrying out its programme, the Rockefeller foundation operated in 42 countries in all parts of the world. According to its Annual Report, during the last year the Foundation appropriated a total sum of over \$15,000,000. Of this amount, speaking in terms of rough classification, \$3,800,000 was given to the medical sciences, \$3,800,000 to the social sciences, \$3,000,000 to the natural sciences, \$2,500,000 to public health, \$1,000,000 to the humanities, and \$300,000 to rural reconstruction in China.

The Rockefeller Foundation gives a survey of tasks which lay ahead for medicine. The reason that the Rockefeller Foundation, in the medical sciences, is concentrating its efforts on mental hygiene is because it believes that at the moment that field represents one of the most under-developed areas in all medicine. In no other field is the need more desperate or the potentialities for useful advances more promising. Cases of mental and nervous diseases occupy more hospital beds in this country than all other diseases combined. Because the field is relatively so difficult, it has lagged far behind other developments in medicine.

Here are some other problems which in recent years have been brought persuasively to the attention of the Rockefeller Foundation. (1) Chemotherapy. The recent development of sulfanilamide, the earlier successes of silvarsan in syphilis and of trypanosamide in African sleeping sickness, suggest the possibility of a broad frontal attack, through organic chemistry, upon some of the hidden secrets of chemical substances. (2) Dermatology. The recent weakening of the great German and Austrian centres of dermatological teaching and research through the displacement of eminent men in this field makes it all the more important that American efforts be strengthened. (3) Pharmacology. This field of medicine is hampered by lack of adequate financial support. (4) Legal or Forensic Medicine. (5) Industrial Medicine. (6) Dentistry. Owing largely to the support of the Carnegie Corporation an auspicious beginning in the development of this field has been made. (7) Public Health.

(8) The diseases of advancing years: the circulatory failures, high blood pressure, chronic kidney diseases, rheumatism, and faults of nutrition in elderly people are examples of subjects in a wide area. Concentration on this group of diseases, backed by sufficient funds, would undoubtedly prove highly productive.

"FROZEN SLEEP"

The treatment of cancer by "freezing"—a method which recently has been reported—was praised now by two Chicago physicians as a highly promising technique. The method, as reported, induces in the patient a state akin to the hibernation of animals.

Dr. D. Kobak and Dr. L. B. Newman of the Presbyterian and Cook County Hospitals, demonstrated before the American Congress of Physical Therapy a method for administering "refrigeration" to the human body by means of air-conditioning. Results already obtained by the "frozen-sleep" treatment promise considerable relief to sufferers from cancer and tumors, according to the report. The authors emphasized, however, that it is too early to build high hopes for a cancer cure, inasmuch as another five years of research and testing now going on throughout the country will be required to determine whether the hibernation technique will uphold its early successes.

"We have long recognised cold as an agent for the cure of diseases. It has many of the effects produced by heat, is often just as pleasant as heat treatment and offers some particular therapeutic benefits which heat applications do not afford." The swelling of joints and malignant tumor conditions can be reduced in size through the application of cold treatments. In contrast to heat applications which often stimulate cancerous areas, freezing frequently produces definite physiological improvement.

Dr. Kobak explained that during the frozen-sleep treatment the cancer patient actually simulates a hibernating animal. He partakes of no food, and the elimination of waste is suspended over a period which may extend from a few days to several weeks. The metabolism rate is considerably lower during this time, and because of this condition abnormal growths are starved and their growth retarded or ended, he added. The technique affords unexplored possibilities for the treatment of other types of disease, including heart maladies. "If we can relieve or lessen the amount of work the heart must do for a period of time by means of this hibernation definite help would be given to a diseased organ. Such investigations are all ahead of medical scientists in the near future."

REMOVAL OF BRAIN TUMORS

Surgery for the removal of brain tumors has brought to light the paradox that half a brain is as good as the whole and much better than three-quarters, according to a report presented before the Third International Cancer Congress by Prof. Byron Stookey, noted brain surgeon of the Neurological Institute of New York City.

Dr. Stookey reported that studies on the personalities of subjects in whom one of the two frontal lobes in the fore brain, seat of human intelligence, had been completely removed indicated what might be described as actual improvement in personality, the subject being able to make quicker decisions as compared with the time when his whole brain was functioning. On the other hand, when one of the two frontal lobes was only partly removed, the operation was followed by emotional instability, listlessness, indifference and failure of mental adjustment to any but simple situation. When one of the lobes was completely removed, little or no impairment of intellectual function resulted; emotional and social adjustments were satisfactory, and there was no loss of inhibition or spatial orientation.

Stookey performed eleven brain operations for tumors in which one of the lobes was removed entirely in some and only partly in others. All the patients survived the operation and eight of them are still living. While one of the lobes is usually dominant over the other, no important difference was observed in subsequent cerebral function, whether the dominant or non-dominant lobe was removed. The observations, Stookey said, bear out the concept of a bilateral representation of personality and mental processes in the frontal lobes, comparable to the bilateral representation of muscle action. The two frontal lobes sent out vibrations in the same wavelength in complete synchronization, thus producing a harmonious complete personality.

When one of the lobes is removed the other still keeps sending in the same wavelength and the personality remains complete. On the other hand, when one of the lobes is damaged by operation its frequency changes, resulting in "interference" and "personality static", a mentality divided against itself. In two cases, the complete removal of one of the lobes resulted in what may be regarded, by ordinary social standards, as mental improvement. One was a man in charge of dispatching trucks whose employer asserted that the man's work had improved. Another person reported ability to learn more easily.

ADVENTURES IN RESPIRATION

Why does the baby begin to breathe at birth? This is one of the oldest problems of science. The purpose is clear, but the cause and means are obscure. A new answer is given by Yandell Henderson in his book "Adventures in Respiration". He believes the answer to be found in the fact that a certain function is deficient in the fetus; and that this function is quickly developed at birth and is then continually maintained throughout life. It is a function of critical importance alike for respiration, circulation and metabolism: the function of muscle tonus.

Bancroft says: So long as the fetus is in its normal environment or in a bath of warm saline with the placental circulation unrestricted, the fetal muscles are entirely devoid of tone. Take the fetus out of the saline and expose its skin to the

air; tone at once appears in its muscles, only again to be abolished by replacing the embryo in the saline. Henderson has reached the conception that in the adult tonus is absolutely essential, for breathing as well as for the maintenance of the circulation. When tonus fails these functions are stopped. The baby has tonus, the fetus has not.

Without tonus, the lungs of the new-born would remain in the fetal state of atelectasis or would revert to that state. Chilling the skin is one of the elements in the development of tonus, but at birth some other reflex and chemical stimuli come into play. The most effective of these stimuli are induced by the fundamental readjustment of the circulation. The first cry of the newborn is a dramatic event. We easily overlook the fact that the child must previously have expanded its lungs by at least an equal volume. This preceding inspiration is made so quietly that it passes unnoticed.

It was long assumed that the initial gasp overcomes atelectasis and inflates all parts of the lungs at once. But actually the inflation develops gradually in essentially the same manner as that seen when the thorax of an animal has been opened, complete deflation induced, and the lungs then reinflated by a succession of puffs of air blown into the trachea by bellows. On the first day of life the volume of the breath is extremely small. Twenty minutes after birth the breath has been found to be only 17 cc., three hours later 21 cc., and six hours after birth 36 cc. A week later, as the average for many normal babies, Dohrn found the tidal air during quiet breathing to be only 40 cc.

Our Canadian Letter

(From Our Own Correspondent)

HEPARIN AND THROMBOSIS

Prof. Charles H. Best of the University of Toronto, who with Banting shared the Nobel Prize as the co-discoverer of insulin, reported the purification at the University of Toronto of another substance from animal tissues: heparin.

Antithrombase or heparin was obtained first by Howell and Holt in 1918 from dog's liver. The product, however, was crude and the quantities obtained very small. Dr. Best reported that Dr. Arthur Charles and Dr. D. A. Scott have finally evolved a method which yields adequate amounts of highly purified heparin. The substance is now being produced on a large scale, and, like insulin, is under the control of the University of Toronto. Both beef lung and beef liver have been found to be rich sources of heparin. The beef lung has been found to be a richer source than the beef liver. It is also found in beef intestine, muscle, lymph nodes, blood, spleen and kidneys.

An adequate supply of highly purified heparin has made possible many types of clinical investigation. In Toronto (and in Stockholm) patients who have undergone operative procedures which are followed by a relatively high incidence of embolic phenomena, have been heparinized during the so-called "anger" period. The results,

according to Best, leave little doubt that heparin is a valuable adjuvant in certain types of vascular surgery, namely, embolectomy, vascular anastomosis, etc. The one place in the human body where the process of thrombus formation can readily be watched is in the retinal vessels. Promising results with the use of heparin have been reported by Swedish workers in the treatment of thrombosis of the central vein of the retina.

Heparin had been found to prevent the formation of dangerous thrombi. Best said that it was now being used clinically by physicians as a preventive against coronary thrombosis. While the work must await further clinical trials, the results so far, both in experimental animals and in actual clinical trials, lead physicians to hope that heparin may prove itself an important life saver in coronary heart disease. Physicians are now beginning to use heparin as a precautionary measure in cases of persons who suffer from coronary heart disease, and who are in danger of sudden death from the quick formation of a thrombus in the coronary artery. Heparin is a carbohydrate substance, probably a compound of glycuronic acid.

CANADIAN EXPERIMENTS IN MEDICAL ECONOMICS

The Canadian Medical Association has not authorized an expression of opinion either in favour of or opposed to the institution of Health insurance in Canada. But the association has set forth what it believes to be necessary guiding principles by which it can scrutinize and measure all plans that are advanced.

T. C. Routley, General Secretary of the Association, outlines the existing plans in this connection. During the past 25 years there has developed in the province of Saskatchewan a plan which is known as the municipal doctor scheme. It includes today 20 per cent of the 600 practising physicians in the province. According to the unit basis of cost of service, it is observed that the doctor was paid as follows: Office consultation (2 units), \$ 0'46—House call (3 units), \$ 0'69—Confinement (15 units), \$ 3'45—Major operation (50 units), \$ 11'50—Minor operation (10 units) \$ 2'30—Immunization (3 units), \$ 0'69.

The Ontario Plan.—Four years ago the Ontario division of the Canadian Medical Association entered into an agreement with the Government of the province. For each person in the province in receipt of relief, including dependents, the Government agreed to provide the sum of 25 cents a month. The services available demonstrated that morbidity quickly rises when resistance to meeting costs is removed. It was estimated at the inception of the scheme that morbidity might stand at somewhere between 6 and 8 per cent. But actually the morbidity figures were for the first year 12.78 per cent, for the second year 14.37 per cent and for the third year 15.40 per cent. In respect of remuneration to the profession, the records show the following payments in relation to total

accounts as taxed and approved: first year 45%, second year 38% and third year 51%. In the third year 35 cents a month capita rate was applied.

City Plans.—In a number of cities in Canada somewhat similar schemes for medical relief have been devised. For the past five years a complete medical service has been supplied in greater Winnipeg to those on relief. Treatment is provided in the office, home and hospital; dental, optical, X-ray and laboratory services are included. Accounts are rendered monthly by each practitioner on a reduced scale of fees. There is no capitation limit or fixed budget, but no doctor may collect more than \$ 150 a month.

In the field of voluntary health insurance an interesting experiment began in Ontario some 18 months ago, when an organization known as Associated Medical Services was incorporated with the official blessing of the Ontario Medical Association, to offer complete medical, surgical and hospital and nursing service to those members of the community who were willing to budget for illness by paying regular premiums as follows: Subscriber, \$ 2 a month—First dependent \$ 1'75 a month—Second dependent \$ 1'50 a month—Third dependent \$ 1'25 a month—Fourth and other dependents \$ 1 a month. There is—as in all other schemes—free choice of doctor, and in all other respects the patient enjoys the same independence and freedom of action as obtains under ordinary private practice.

From experience in Canada, Routley is confident that there is no need for persons outside the medical profession to assume that, unless they take it on themselves to arrange for adequate medical care for all the people, such care will be denied those who need it most.

OVER-TREATMENT IN SYPHILIS

During the last few years F. E. Cornia, Montreal, encountered five instances of well defined overtreatment in patients receiving combined neosarsphenamine and preparations of bismuth. The gradual development and insidious nature of the symptom complex make it particularly susceptible to misinterpretation, and many patients have been precipitated into actual mental or physical breakdown by the persistence of misguided therapeutic measures. The depressing influence of the bismuth therapy was shown by the general symptoms of fatigue, weakness and loss of weight. All the patients were physically below par and complained of persistent malaise even while resting from their regular occupations. Since this depressing effect is rarely observed when bismuth compounds alone are given, it is reasonable to assume that it is due to the prolonged administration of both arsenic and bismuth compounds.

Chronic cough may possibly represent a combined action of both arsenic and bismuth and are to some degree a secondary mild infection dependent on lowered general resistance. Large doses induce chronic depression or cumulative toxic action.

INDIAN MEDICAL NEWS

(From Our Own Correspondent)

THE LAHORE MEDICAL CONFERENCE

The 16th All-India Medical Conference under the auspices of the Indian Medical Association was held at Lahore during the last Christmas week-end. Dr. Bhupal Singh, the President-elect, gave an excellent survey of the recent medical politics of the country, while Dr. Doulat Ram urged to back up resolutions by action. Medical economics loomed large in the deliberation. The doctors were advised to take weekly and yearly holidays, to charge reasonable fees boldly, to resist the temptation of accepting low fees for insurance medical certification, and to develop a spirit of comradeship among the local practitioners. Profiteering in medical supplies was strongly condemned and the Government requested to interfere without undue delay. By another resolution the Government was requested to help indigenous chemical and pharmaceutical industries by way of protection and necessary financial aid. The resolutions on medical education, Provincial and Indian Medical Councils were somewhat half-hearted but they indicated, at any rate, that the profession is very much dissatisfied at the existing state of things and at the way the leaders are tinkering with these problems. In fact, the speakers on the last resolution on the Indian Medical Council, Drs. A. Viswanathan and Capt. Gulatia, warned the Indian Medical Association that it ought to show better and greater spirit of activity than conventionally embodied in the resolutions passed and set its face strongly against any deprivation or limitation of the statutory rights and privileges of the profession. On the whole, however, the Conference was a great success: the accommodating spirit of the President, the searching and constructive criticisms by a number of accredited delegates from different provinces, the high level of debate and the prevalence of good humour in spite of acute differences in outlook on policy and methods of work between the leaders and a considerable number of delegates were some of the outstanding factors that contributed to such a success. Dr. Doulat Ram and his colleagues were responsible for the excellent arrangements they had made for the reception and accommodation of the delegates.

REPORT OF THE MISSION TO LEPERS

The story of a London postman, who put by nearly £2 a week out of his wages of £3-10, in order to do something for destitute lepers in India, is related in the sixty-fifth annual report of the Mission to lepers, issued by its Indian Auxillary. The leper home in Manamadurai built by the contribution of the postman, Mr. Francis Cardinal, according to the report, so quickened the interest of other British postal workers that they contributed funds for another ward, and the Indian postal workers

followed them having donated a sum of Rs. 13,000 towards the construction of an assembly hall.

The report adds that much of the growth in the Mission's work during the last year (September 1938 to August 1939) has been in the care of greater number of children suffering from leprosy. At the end of 1937 there were 560 children in the care of the Mission and at the end of 1938 the number increased to 678. There was an addition to the special accommodation for children by the opening at Purulia, Bihar, of the Dublin Ward for girls with leprosy in its contagious form. A new home for healthy children at Vedathorasalur, Madras, was opened in October, 1931. Another home in Cuttack, the King George V. Memorial Wing for boys with leprosy, given by the people of Orissa to the Mission, has been opened. The expenditure in India and Burma upon the Mission's work was Rs. 8,42,535 in 1938, as compared with Rs. 8,12,209 in 1937. Of this total, Rs. 4,10,688 was contributed by voluntary gifts, of which well over three and a half lakhs of rupees came from supporters in distant lands. Five hundred and fourteen patients were discharged during 1938 with the disease arrested before deformity had begun. The report recorded the death of Miss Isabel Hatch, in her 85th year, who had established a Home for lepers in Ramachandrapuram in Madras and who had worked for the "Home of lepers" till the last days of her life, and of Mr. Francis Cardinal.

ASSOCIATION OF SURGEONS OF INDIA

The second annual conference of the Indian Surgeons' Association was held at Madras during the X-mas week-end and there was about 80 delegates from different parts of India. Lt.-Col. K. G. Pandalai who opened the conference and exhibition said it was a matter of gratification that India was becoming increasingly self-reliant in surgical industries although the present war had somewhat unsettled the normal growth. He emphasised the need for the development of specialities, as there was a great scope for the same in every province and as it was no more desirable to allow practitioners to do all things at the same time. "Another great need of the country," he continued, "was the development of hospitals or clinics devoted to the advance of special subjects. It was only thus that their young men could gain experience by handling a large number of cases of a particular kind and surgical research be placed on a firm footing." And he concluded by pointing out that Indian surgery had reached such an advanced stage that the Indians felt that they were able to do good work as in any other part of the empire; that while welcoming outside help and co-operation they should keep on to themselves the leadership and responsibility in all essential matters of policy and routine; and that an Indian College of Surgeons should be established to confer a diploma in advanced surgery corresponding to the fellowship of the Royal College of Surgeons of England.

Dr. S. R. Moolgakar of Bombay has been elected as President for the next year session at Delhi.

TUBERCULOSIS NEWS AND NOTES

Need For Trained Doctors

Dr. Frimodt-Møller, speaking at a function of the opening ceremony of Lady Lillithgow's Hospital as an appendage to the Tuberculosis Sanatorium at Arogyavaram, stressed on the need for more doctors adequately trained in the modern methods of diagnosis and treatment of tuberculosis. Money alone was not sufficient to stem the spread of tuberculosis. For the complete control of the disease other factors also had to be available, as they played as essential a part in the campaign against tuberculosis as money. One of these factors was a sufficient number of doctors trained in the modern methods of diagnosis and treatment of tuberculosis. Continuing, Dr. Frimodt-Møller said, it was becoming more and more evident that one of the most serious difficulties which the present campaign against tuberculosis in India had to face, was the great scarcity of properly trained tuberculosis doctors. This unfortunate situation could not be avoided simply by appealing to doctors to take up the fight against tuberculosis as their life work, because the difficulty was not that there were not enough doctors willing to do it, but that there were in India, at present, few places where there were proper facilities for the special training of such doctors.

Continuing, Dr. Frimodt-Møller said that it could not be emphasised enough that the specialised knowledge of diagnosis and treatment of tuberculosis could not be obtained by any doctor by a few weeks' visit to a tuberculosis institution, nor by attending for one month a course of instruction in the various aspects of tuberculosis and its problems. The one month's postgraduate course in tuberculosis arranged by the Tuberculosis Association of India had not in view the training of tuberculosis specialists. The courses were arranged by the Tuberculosis Association with the particular object only of giving doctors who were interested in tuberculosis a vision of the new outlook on the disease and of the modern methods of diagnosis and treatment. This was done in order to enable them to know what should be done for their patients, and what they themselves could do, either because of lack of facilities or of experience. These courses supplied the doctors with the knowledge of treatment and of the problems of tuberculosis, absolutely essential for them to be able to co-operate effectively with the tuberculosis specialist in charge of the new institutions.

FULL TRAINING NECESSARY

Dr. Frimodt-Møller went on to say: "The training of tuberculosis doctors requires a far more thorough teaching than can be given in a short course of the type mentioned. The time required

for the adequate training is at the very minimum six months and should preferably be nine to twelve months, because they must have opportunities not only for attending lectures and practical demonstrations of the modern methods of diagnosis and treatment but also of gaining experience in using these methods, whether in the wards, operation theatre, X-ray laboratory, or in survey work. An institution suitable for giving such training should, therefore, have at least 100 beds and should be equipped with all facilities now or in the future found necessary in diagnosis and treatment, and it would be best not to have more than a few doctors for training at one time, unless the institution is of a considerable size and staffed sufficiently to undertake such teaching."

Answering an argument that doctor in charge of clinics need not get extensive training as he would not be expected to do major operations, the speaker said that even a tuberculosis clinic should have a doctor with a full training, as in order to be able to give the best advice to the patients he examined, he must be capable of judging prognosis properly and of knowing what modern treatment could achieve often in what seemed the most desperate cases. It would also be necessary for him to treat patients with specialized treatments, like pneumothorax, to a far greater extent than was done in former days in a clinic. Full training was all the more necessary in India, as it would frequently be the clinic doctor who would have to be behind the general practitioners, helping and supporting in the home treatment of his patients.

MORE TRAINING CENTRES

Proceeding, he said the doctor in charge of a tuberculosis hospital or a sanatorium must have not only the training for six to twelve months, but must have also years of experience in all aspects of the treatment, including the surgical measures now widely adopted, and be a man of mature judgement capable of scientific appreciation of methods and results. It was chiefly in these institutions that developments in treatment and discoveries of new ways of treatment could be worked out, as had been done in the past. Unfortunately, there were, at present, in the whole of India only a very few places where doctors could be given the proper training. Therefore, one of the first measures in the campaign was for each province and principal State to concentrate on creating for itself at least one large tuberculosis training centre before clinics were widely distributed. It was very encouraging that the Madras Presidency had taken the lead in the proper training of tuberculosis doctors, and that it was intended to establish five or more such training centres in this province in order to get a sufficient number of tuberculosis doctors. One of the few places in India which was at present capable of training tuberculosis doctors, was this Sanatorium, with its 250 beds, its complete up-to-date facilities and

equipment, and an experienced staff able to teach.

Tuberculosis Health Insurance

At a monthly meeting of the Tripchinopoly District Medical Association, held in the E. R. High School premises, Dr. R. Viswanathan of Medical College, Vizagapatam, delivered a lecture on "The Diagnosis and non-Sanatorium Treatment of early Tuberculosis", on Dec. 31, 1939. Dr. T. S. S. Rajan presided.

In the course of his address, the lecturer emphasised on the importance of repeated examination of suspected individuals clinically and radiologically in order to find out early cases of tuberculosis. It was to facilitate this work that tuberculosis clinics were required. As institutional treatment would not be available for all tuberculosis patients, one had to fall back on domiciliary treatment in most cases. The work of the clinic would be facilitated in this matter by adopting some method of insurance scheme, preferably compulsory, in the clinic area by which every adult member of a family getting an income of above Rs. 15 should be made to pay one anna per month. People who were thus insured would be periodically examined at the Clinic when there was the slightest suspicion so much so that even if the disease was not prevented, it could be successfully treated at its earliest stage. The insurance money could also be utilised for paying practitioners who could be asked to visit poor patients in their homes.

Psycho-Analysis By Edward Glover, Edition 1939. John Bale Medical Publications Ltd., London.

In spite of the many advances in the teaching of medicine, it is still generally true that clinical psychology is still treated as a Cinderella among medical subjects that are taught to the students. In India, at any rate, no regular tuition on this subject is given to the medical students and when they go to practice there is something beyond mere diagnosis and treatment which they have to reckon with in their dealings with the patients. A book of the kind under review would be of great help to them. The author vivisection the human mind in all its aspects and co-relates its influence on environment and vice-versa. The practise of psycho-analysis by a busy practitioner, the author admits, is very difficult, but he is sure that it would pay him in the end if he should care to learn and practise the art. But it also requires patience, tact and co-operation from the patient, and if these are available there is no doubt that psycho-analysis will form an admirable part of a physician's equipment in dealing with man in physical or mental distress. The book is rightly and reverently dedicated to Sigmund Freud who has retrieved the useful science of psycho-analysis from the quagmire of charlatanism and quackery. We wish every medical practitioner goes through the book and thus learn many things which are bound to help him in the practice of medicine as an art and a science.

REVIEWS AND REPORTS

A Practical Entomological Course for Students of Malariology By P. G. Barraud and revised by I. M. Puri. Second Edition 1939. Re. 1-12 or 2s. 6d. Manager of Government Publications, Delhi.

Though this book is given an unassuming caption as Health Bulletin No. 18 by the Public Health Commissioner of India yet it is more than a mere bulletin since it has got all the characteristics of a text-book on practical Malarial Entomology. It is excellently illustrated, and contains a decent bibliography. The arrangement of the subject is so made as to be serviceable both to the teacher and the student of Malarial Entomology. Written and revised by persons who are actual masters of the subject, we consider the book as authoritative and indispensable to the Malariologists in India and elsewhere. The reviewer is unable to offer his criticisms on the details of the subject treated in this book for the simple reason that fools should not tread where angels are afraid to enter, but from the plan of its contents it is obvious even to a cursory reader that the authors have been practical in their outlook, and aim to offer substantial benefit to their readers.

A Text-Book of Gynaecology for Students and Practitioners By James Young. Fifth Edition, 1939, with 226 illustrations. Price 16s. net. A. & C. Black, Ltd., London.

We have reviewed the fourth edition of this book in these columns some years back, and it now remains only to say that it has kept up to its previous reputation for accuracy of facts and clarity of expression. The one under review naturally includes detailed references to modern advanced in sex endocrinology in relation to clinical gynaecological problems. We heartily commend this book to our readers.

A Text-Book of Midwifery for Students and Practitioners By R. W. Johnstone. Tenth Edition, 1939, with 290 illustrations. Price 18s. net. A. & C. Black, Ltd., London.

Johnstone's is a favourite text-book in the medical colleges and schools of our country and it barely needs an introduction to them. Its tenth edition is completely revised and brought up-to-date, and therefore would continue to enjoy its accustomed popularity.

Savill's System of Clinical Medicine Edited by Agnes Savill and E. C. Warner. Eleventh Edition. Price 28s. net. Edwin Arnold & Co., London.

This book requires no introduction to the medical men and students in India. It is a master-piece of clinical medicine with no rival of its kind. The method of presentation is strikingly unique and convincing. It will help both the teacher and the taught, for it combines in it a perfect method of teaching the vast subject of medicine with the simplicity and clarity of appeal to the student.

(Continued at foot of left Column)

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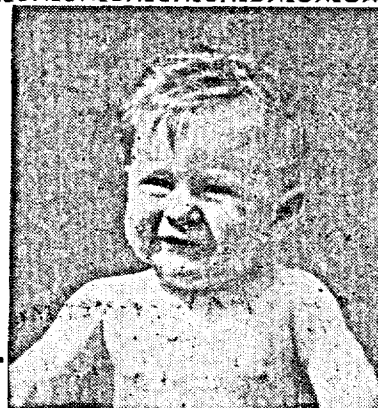
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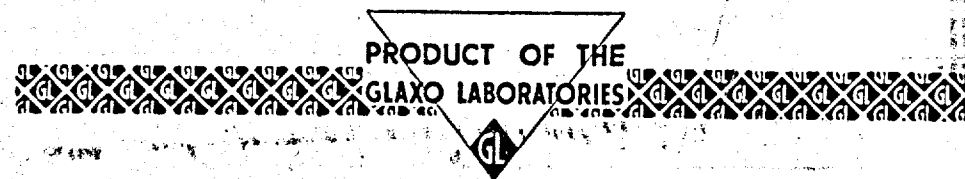


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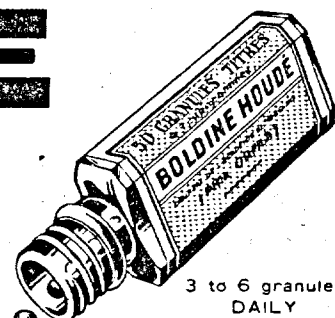


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*Davidson and Fullerton, Edinburgh Med. J. 1938, 45, 193.

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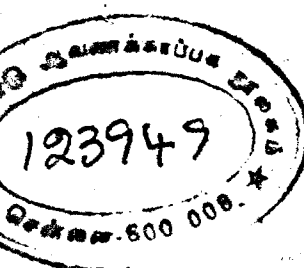
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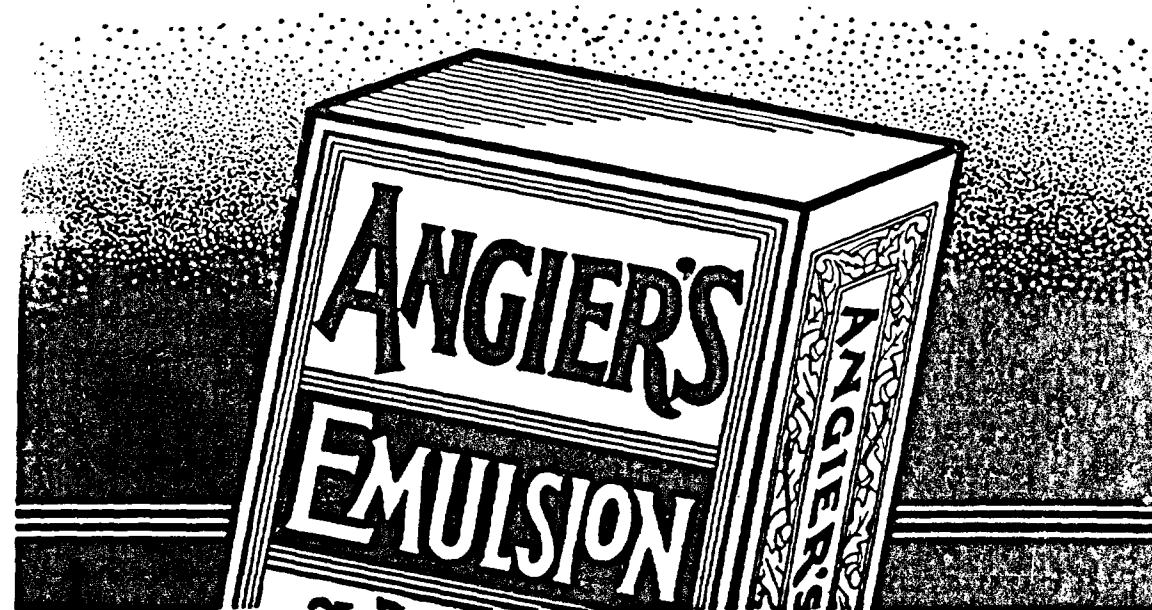
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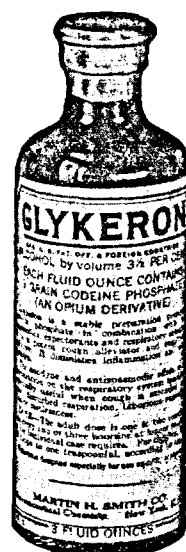
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