

REPORT

OF THE

MATERNITY AND CHILD WELFARE CONFERENCE

HELD AT

DELHI.

FEBRUARY 4th—8th, 1927.

Printed for
THE LADY CHELMSFORD ALL-INDIA LEAGUE FOR MATERNITY AND
CHILD WELFARE,
BY THE DELHI PRINTING WORKS, DELHI.

CONTENTS.

	PAGE.
1. FOREWORD	1 & 2
2. ADDRESS OF WELCOME BY HER EXCELLENCY THE LADY IRWIN	3 & 4
3. INTRODUCTORY REMARKS BY SIR HENRY MON- CRIEFF SMITH	5 & 6
4. PROGRAMME OF THE CONFERENCE...	7—10
5. PAPERS WRITTEN FOR THE CONFERENCE ...	11—188
6. GENERAL OUTLINE OF THE DISCUSSIONS ...	189—198
7. RESOLUTIONS PASSED AT THE CONFERENCE ...	199—202
8. LIST OF DELEGATES	203—208
9. LIST OF CHILD WELFARE CENTRES IN INDIA ...	209—219

FOREWORD.

THE possibility of holding an All-India Child Welfare Conference had been considered by the Lady Chelmsford League for sometime before the actual event took place. It was felt that such a gathering would tend to promote co-operation and unity and would serve as a stimulus to further work. The Child Welfare Exhibition and Conference held in Delhi in 1920, led to such an advance that for a time the Committee was inclined to consider the possibility of repeating the Exhibition. The advent of Baby Week in India, however, to some extent did away with the need of an exhibition, as it was no longer such an unusual event and its usefulness was not questioned. On the other hand the increase in the work had created many problems which urgently demanded solution and this need could only be met by bringing together those who were engaged in or interested in Child Welfare work, for full and frank discussion and exchange of opinion. Accordingly the idea of an exhibition was given up and in its place the Chelmsford League decided to issue preliminary notices of an All-India Child Welfare Conference to be held in February, 1927.

These preliminary notices met with a good response; it was evident that the idea of such a Conference was welcome to many and that they were convinced that it would serve a useful purpose.

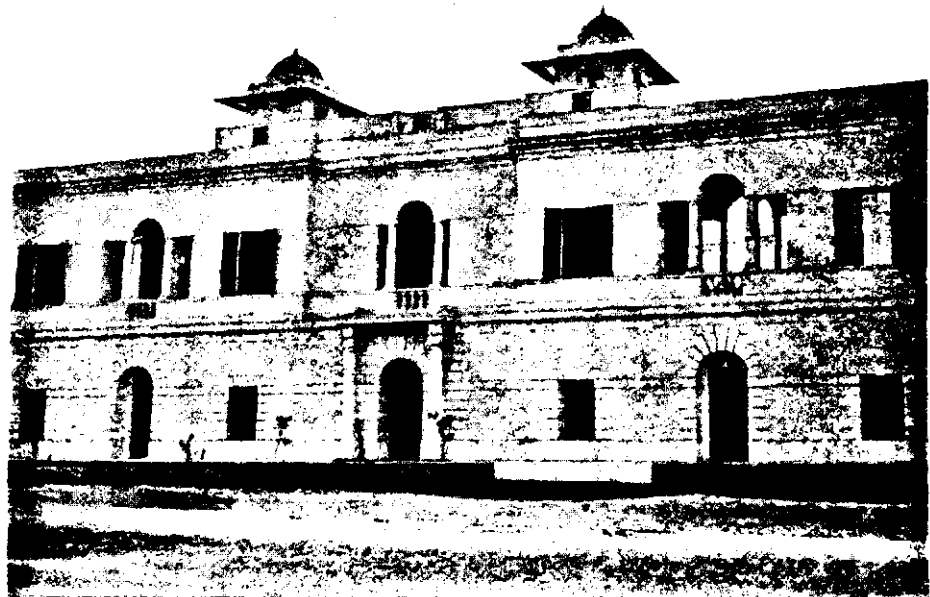
Three Committees were drawn up, an Executive Committee, a General Committee and a Hospitality Committee. The Executive Committee proceeded to draw up a programme of subjects which were felt to be those which merited discussion. It was a matter of some difficulty to select and group the subjects. The programme was a full one as it was, but it might have

been impossibly full, had all the subjects suggested been included.

The Committee wisely determined to adhere closely to the subjects of the Conference, namely, Maternity and Child Welfare, and refused to be side tracked into topics such as the Milk Problem, sanitation of villages and others which enthusiasts would have introduced. Having selected the subjects for the Conference, the Committee proceeded to call for papers from those who were most competent to write them. The majority of those who were asked to contribute papers responded willingly to the invitation and the result is seen in the papers reprinted in this report. At the time of the Conference the papers were taken as read, having been circulated previously to delegates; thus all the time, and it was none too much, was given to discussion.

The Hospitality Committee had an arduous task and performed it with great success. The Committee had guaranteed to find hospitality for delegates, but this promise might have been impossible of fulfilment had the Hospitality Committee not worked so nobly. To this Committee was entrusted also the arrangements for the lunches and excursion which were much appreciated by all.

Several Members of the Conference had expressed a desire to have a permanent record of the Conference in book form. The Executive Committee therefore, at the close of the Conference, decided to circularise delegates with a view to obtaining opinions on this point. The response was very gratifying so the publication of a report was decided on. It is now issued in the hope of immediate usefulness and with the conviction that the Conference of 1927 will prove to be a land mark in Child Welfare work, in the same way as the Exhibition of 1920.



THE LADY READING HEALTH SCHOOL.
THE MEETING PLACE OF THE CONFERENCE.

*Her Excellency Lady Irwin's Address at the
Opening of the Maternity and Child
Welfare Conference.*

SIR HENRY MONCRIEFF SMITH, LADIES AND GENTLEMEN,

May I first thank you for your kind words of welcome to me and may I at the same time congratulate your Committee on their initiative in calling you together so early in the history of the new capital.

I realise at what inconvenience many of you have travelled so far and I thank you for coming here to-day in the interests of the women and children of India.

Although I can assure you that these matters interest me deeply it is with great diffidence that I venture to address a meeting of experts in the subjects which your Conference is called upon to discuss.

The objects of the Conference are being ably stated by Sir Henry Moncrieff Smith and I cordially share with him the hope that the outcome of this week's counsels may be the finding of a solution to many of the grave problems which particularly affect the well being of mother and child in India.

The tragic figures of infantile mortality are constantly before us, we know that much of this suffering is preventable and calls forth the deepest sympathy from every human person. I feel that a Conference such as this is a worthy effort to crystallise this sympathy into co-ordinated and beneficial action. I am convinced that you will each return to your own District determined to apply any new policy you may decide on with enthusiasm and with the courage to eliminate weakness in administration that has its origin in sentiment rather than in reason.

A further aim that I feel sure you will keep in view is the standardisation of effort throughout the country and of the tests which should be applied in selecting those who wish to qualify as professional advisers of the people.

Your President is associated with the Central Charities which are attempting to deal with many of your problems and can help you with much practical experience: he will, I know, be anxious to benefit by your expert advice.

Your Chairman, as head of a great medical service, has a wide knowledge of the difficulties with which the Health Worker is faced in this country and which you are met to dispel.

I would close with one word in appreciation of the forethought and enthusiasm of my predecessor, Lady Reading, in providing this Health School and this Hall which makes such an excellent setting for your Conference.

I welcome you all to-day and wish your deliberations a very successful issue.

*Introductory Remarks by Sir Henry Moncrieff
Smith.*

YOUR EXCELLENCY, LADIES AND GENTLEMEN,

My part in to-day's function is a small one. It is my pleasing duty to welcome Your Excellency here and to thank you for coming to open this Conference. The mere fact of Your Excellency's presence affords to all a practical demonstration of your interest in the absorbing subject which has brought us together. It is an encouragement to those whose initiative and energy have enabled this Conference to be assembled as well as to those who have come—some from long distances—to take part in the discussions, to give us the benefit of their experience and perhaps to acquire knowledge from the experiences of others.

In this city a few days ago was held the Annual Delhi Health and Baby Week, the object of which was to propagate among the population of this city a knowledge of the methods they should follow in order to secure health, comfort and happiness for the young children of Delhi and their mothers. The object of this Conference is somewhat different. On this occasion the teacher has come to learn. The Child Welfare movement in India is not much older in years than the small objects of its solicitude. The beginning of it on a scale at all commensurate with the magnitude of the problem cannot be traced back more than 7 years. In 1920 a Conference and Exhibition took place in Delhi; some of those present here may remember it, and those who do will realise what great progress has been made in the subject in this short time. That Conference perhaps did little more at the time than bring to those who took part in it a realisation of the difficulties of the problem and the vast scope for work in the sphere of Maternity and Child Welfare. The subject was one which for some time had attracted the attention of Lady Chelmsford, and the outcome of what took place 7 years ago was the formation of the Lady Chelmsford League.

It started with a very small amount of capital which has not been appreciably augmented. It cannot therefore give the financial assistance it would like to individual and local schemes for infant welfare; but I am glad to say that provincial governments and local bodies have awakened to a realisation of the importance of the subject and in a steadily increasing measure are devoting their revenues to its furtherance. Nevertheless, in view of the vast infant population of this country, the amount spent is small. It therefore behoves those who have the spending of the money to see that methods are adopted which will produce the greatest possible benefit. That is possibly one of the chief aims of this Conference; that we may in the words of the handbook "leave the Conference with clearer ideas of what our aim should be, a greater determination to pursue it, and courage to discard methods which are not fulfilling it." I sincerely trust and believe that this Conference will mean another great step forward in the development of Child Welfare work throughout India.

With Your Excellency's permission I desire to take this opportunity to thank some of those whose efforts have enabled us to meet here to-day. It goes without saying that our thanks are due to the Members of the Executive Committee who have been at work for a long time past arranging the programme and the details of the Conference. The Hospitality Committee deserves credit for their work in finding accommodation for our guests and for the arrangements which have been made for their comfort and entertainment. The Delhi Health School is placing some of its premises at our disposal and the Manager of the Elphinstone Picture Palace has lent the services of a Cinema operator. The authorities of the Lady Hardinge Medical College are entertaining us on the 7th February. Finally, may I, on behalf of all, thank Your Excellency for the kind invitation which we have received to visit Viceregal Lodge, on the 8th February. We are deeply grateful for the many proofs of Your Excellency's interest, not the least of which is your presence here this afternoon.

PROGRAMME.

Friday, 4th February, 1927.

4-45 p.m.

Address of Welcome by H. E. LADY IRWIN.
Cinema Display.

Saturday, 5th February, 1927.

10 to 11-30 a.m.

11-45 a.m. to 1-15 p.m.

Group A.—ORGANISATION.

Chairman :—Dr. A. C. Scott, C.M.O., W.M.S.

<i>Subject.</i>	<i>Writer.</i>
I.—1. What is the present relationship of voluntary organisations for Maternity and Child Welfare to official organisations in India ?	} Major A. J. H. Russell, I.M.S., Madras.
2. How can this relationship be improved ?	
3. Is legislation in the interests of the work at present necessary and desirable ?	
II.—1. How can more uniformity and co-operation be secured in Child Welfare Work ?	} Dr. Curjel Wilson, Jhelum. Dr. R. Young, Delhi. Dr. Sethna, Delhi. Dr. Balfour. Dr. N. L. Ranade, Poona. Dr. P. V. Shikhare, Thana. Mr. K. G. Venkateswaran, Khandwa.
2. What are the best methods of record keeping in Child Welfare Work ?	
3. How can scientific information with regard to Child Welfare Work be obtained ?	
4. Is there need for an enquiry into the causes of Infant Mortality ?	
III.—1. How can more and efficient help from voluntary workers be obtained and organised ?	} Mrs. Cousins, Madras.

Afternoon.

Excursion to the Qutab.

Monday, 7th February, 1927.

10-30 a.m. to 1 p.m.

Group B.—THE HEALTH VISITOR AND HER WORK.

Chairman :—Dr. A. C. Scott, C.M.O., W.M.S.

<i>Subject.</i>	<i>Writer.</i>
I.—1. How can a greater number of Indian women for training as Health Visitors be obtained ? 2. The present methods of training : are they adequate? In what respects is improvement required ? 3. Should there be more than one standard for Health Visitors' training ?	}
	G. K. Devadhar, Esq., <i>Poona.</i> Miss E. Griffin, Delhi. Miss Raynor, Lahore. Dr. Headwards, Calcutta. Dr. Chinnappa, Madras.
II.—1. What organisation is required— (a) To effect registration of Health Visitors. (b) To exercise disciplinary control. (c) To regulate the conditions of employment of Health Visitors, pay, etc.	}
	Miss Simon, Lahore. Mrs. Symons, Delhi.

2 to 4 p.m.

Group C.—ANTENATAL WORK.

Chairman :—Dr. Curjel Wilson.

I.—1. To what extent is antenatal work organised in India ? 2. Is the antenatal work at present carried on in India calculated to reduce maternal mortality and morbidity and neonatal mortality ? 3. What need is there for extension and improvement of the work ? 4. What are the best methods of organising it ?	}
	Dr. Headwards, Calcutta. Dr. Bramsen, Mardan. Dr. Balfour. Dr. Webb, Agra.

4-45 p.m.

At Home at the Lady Hardinge Medical College.

Tuesday, 8th February, 1927.

10-30 a.m. to 1 p.m.

Group D.—THE DAI.

Chairman :—Mrs. Pennell, M.D.

<i>Subject.</i>	<i>Writer.</i>
I.—1. Is the indigenous dai worth training ? 2. What are the results of the efforts of the past 20 years ? 3. How can the training be accomplished— (a) In towns ? (b) In villages ? 4. What improvements in the present system of training are necessary ?	}
	Dr. P. C. Sen, Dacca. Miss Bose, Asrapur. Dr. D. Kelkar, Satara.
II.—1. Is the time ripe for legislation to authorise the registration of practising dais ? 2. What methods should be adapted to secure this ?	}
	Major J. R. D. Webb, I.M.S., Simla. Miss R. Piggott, Hyderabad.

Group E.—WORK AMONG CHILDREN.

[Pre-school and school age.]

Chairman :—J. A. Richey, Esq., C.I.E., I.E.S.

I.—1. Is work among children of the toddler age being adequately undertaken at present ? 2. Is the general opinion that such work is a necessity, and why ? 3. What is the relationship between this work and that of inspection of school children ? 4. How can the work of the latter be encouraged ?	}
	Mrs. Bhore, M.B., Delhi. Dr. Tilati, Baroda. Dr. Young, Delhi. Miss Mitra, Delhi.

2 to 4 p.m.

Group F.—PROPAGANDA WORK.

Chairman :—G. K. Devadhar, Esq., C.I.E.

<i>Subject.</i>	<i>Writer.</i>
I.—1. What are the most effective propaganda methods for India ?	} Dr. H. V. Tilak, Bombay. Mrs. E. A. Johnson, Balasore.
2. Is this branch of work adequately developed ?	
3. Is the interest of husbands and fathers sufficiently secured ?	
4. What is the place of "Baby Week" in propaganda work ?	
5. How can advantage be taken of the Schools in educating children in subjects such as Hygiene and Mothercraft ?	

RESOLUTIONS.

4-30 p.m.

Garden Party at Viceregal Lodge.

Note :—The Child Welfare Centres of the Delhi Municipality, of the Delhi Baby Week, and of the Lady Reading Health School may be visited on the morning of Monday and Tuesday. The Lady Hardinge Medical College and Hospital can be seen at the At Home.

THE ORGANIZATION OF MATERNITY AND CHILD
WELFARE WORK IN INDIA.

MAJOR A. J. H. RUSSELL, I.M.S., MADRAS.

Maternity and Child Welfare work in this country is of very recent origin. In Madras City, for example, a small scheme was started by the Corporation in October 1917, the object being to provide skilled midwifery service free of charge for women of the poorer classes. It is to be remembered, also, that outside the central organizations very little philanthropic effort has been made to develop the work in rural areas where the need is greatest.

Voluntary social organizations have of course been in existence in India for ages; but their efforts have been guided almost wholly by religious ideals. "Feeding the poor" and the "uplift of the depressed classes" are two examples of such activities. The formation of an organization for maternity relief and child welfare was apparently never visualised, and in spite of the enthusiasm of numbers of ladies,—the new idea has not yet permeated to any great extent. This is probably due to an entire lack of appreciation of the need for such work either by the educated or the uneducated sections of the community. It seems, therefore, that if the movement is to become a real national one,—as it eventually must,—there must first of all be an enlightenment of the public mind and the formation of public opinion. "There can be no mistake about the saving of lives and the training up of a healthy generation." But this can only be achieved by spreading a knowledge of the principles and practice of hygiene among the great mass of the people. "In this, as in other spheres of human affairs, ignorance is the chief curse." Great sanitary reforms can only be accomplished with an enlightened responsive people, who, in proportion to the knowledge acquired, not only demand the establishment of communal hygiene by the authorities and give its consent to sanitary administration, but will practise hygiene in its relation to individual health and well-being.

In India, as in other countries, there are three agencies for carrying out educational propaganda in respect to health matters in general, and maternity relief and child welfare in particular. First, there is the central authority, one of whose functions is to organize, formulate and advise as to methods of propaganda and public education in health matters. This authority carries on research work, endeavours to promote the discovery of new truths, frames new laws and regulations, conducts enquiries over the whole field of preventive medicine and presents available knowledge in its periodic reports and publications.

Secondly, we have the local authority upon whom, consequent on the Reforms Act, the burden of health administration has devolved. For the most part, these bodies have not yet realised their heavy responsibilities. The reasons are obvious. In the absence of a consolidated Public Health Act, there is no uniformity of action or of objects to be attained. Enterprise and initiative are largely wanting for which lack of funds is the nominal and universal excuse. Moreover, all that scents of officialdom is looked upon with suspicion, and, worst of all, official reports and publications, however elaborate, interesting and informative, do not permeate through to the people nor is the information contained in them assimilated even by the educated section.

For the interpretation and dissemination of that information one must look for help towards the third agency, viz., voluntary organizations. These organizations ought to be of the people and for the people, and, if properly managed, are of great use in spreading knowledge of health matters. In Madras, we have had for over three years a voluntary body known as the Madras Health Council, which was given a financial start by donations from the Indian Red Cross Society, but which has latterly been compelled to depend for most of its income from annual Government grants. The preparation of the material issued by this body has been largely carried out by officers of the Public Health Department and of the King Institute, so that it has been considered necessary to suggest that its activities should be taken over by a new section in the office of the Director of Public Health and placed in charge of a special Health Officer.

As regards any relationship existing between voluntary health organizations, such as the Maternity and Child Welfare Association, and official bodies, such as the Medical and Public Health Departments, for all practical purposes, there is none. No doubt the Surgeon-General and the Director of Public Health are *ex-officio* members of the Committees of the Maternity and Child Welfare Association, of the Red Cross Society and of the Madras Health Council, but except in the case of the last (and its peculiar position has already been explained) there is neither "co-ordination of policy nor co-operation of effort." Each more or less works in water-tight compartments, and little effort has been made to understand each other's difficulties or to bring their respective activities into close touch with each other. It has been suggested that this is due to suspicion and jealousy, but whether this be true or not, without doubt considerable gaps and overlapping occur.

Other causes hinder progress in Maternity and Child Welfare work in this country. In the first place the women of India have taken very little interest or active part in the

campaign. Not one mother in a thousand has either the leisure or the education or the aptitude to devote time to anything outside her own home, and only with emancipation of her sex can any change in this direction be expected. Whether as a result or not, the aims and endeavours of existing voluntary organizations lack publicity, very little information being given to the public. Few know how centres are established, how they are financed and what their purpose is; and in certain cases, even the local authority is unaware of the "why" and the "wherefore" of the centre.

Further, the idea apparently has been that maternity and child welfare work is entirely the province of women, and that men are not wanted. Those who maintain this position do not appreciate the social and domestic circumstances of Indian family life. The average Indian girl is brought up to be a housewife, and, in 99.9% of Indian households, the husband and father is the dominating personage and has an immeasurable influence over his wife. In connection with the subject under discussion, the man of the house requires to be educated equally with the mother, in fact, he ought to be catered for first, instead of being ignored altogether. The knowledge acquired by him can be conveyed to his wife, and no one else can do that more befittingly. In addition, if his interest is once roused, he, as the wage earner, might be induced to make monetary contributions; the wife will seldom be in a position even to consider that possibility.

In every country in the world it has been found difficult to harmonise the activities of non-official bodies interested in health work with official health agencies. The Madras Health Council has worked harmoniously with the Public Health Department because it had several Public Health officials on the Council, and even if the Public Health Department takes over its work, it is proposed to have an Advisory Committee of voluntary workers to maintain a liaison between the official and non-official agencies.

Consultation is obviously the first step, but "an open mind and a willingness to understand the point of view of the other" is also absolutely necessary. The Government official must try to understand the urgent desire of the voluntary health agency to create without delay an organization which in a short space of time will be able to record clearly some definite result. Similarly the less optimistic, more leisurely and perhaps more practical point of view of the Public Health official must be heard and appreciated by the voluntary worker, because so few of the leaders of unofficial organizations have any real conception of the problems they propose to tackle.

In order to prevent both gaps and overlapping, the proposed programmes of all unofficial health agencies should be laid before the Public Health Department. Every effort should be made to bring them into harmony with the policy of that Department, and where proposed activities or policies are not approved, these items should be dropped.

Every proposed expansion of the activities of the unofficial agency should be approved by the Public Health Department before it is undertaken, for the Government Health officials are in the best position to judge of the need, or of the likelihood of success. No unofficial body should assume the privilege of setting up independently a programme to suit itself, and then come to the official Public Health Department and demand assistance. The official organization cannot subordinate its programme to the requirements of one that is unofficial. A division of labour in joint activities is best.

The voluntary organization should not encroach on fields already under the control of the official Public Health agency, but may at the same time take up the position of adviser or consultant. For example, where a local board is doing maternity and child welfare work, an auxiliary committee representative of all interests should be formed.

Local authorities may also subsidise voluntary agencies, maintaining a degree of control by having representatives on the managing committee. Working in harmony such a joint committee will constitute a reference bureau in relation to all that concerns maternity and child welfare work in the area; and the Government official agency can help by providing suitable literature and propaganda material framed to suit local conditions and by training workers at a Health Visitor's School maintained and supervised by Government.

Voluntary enterprise should form the link with the child's home in the first place. Later on both midwives and health visitors will work with the same object in view—the ultimate end being the creation of public opinion, and the dissemination of knowledge regarding the advantages to be derived both by mothers and children from regular attendance at the maternity and child welfare centres. Every father must have his responsibility in this connection brought home to him.

In the matter of legislation, one has to walk with great circumspection. Legislation to be effective should not be permissive and it must follow the development of an enlightened public opinion. No statutory system can exercise direct and continuous control of the personal health and habits of the individual, unless it has the willing consent of the people and their co-operation in its administration. This is the great

difficulty in regard to problems associated with maternity and child welfare which are personal and social in character.

Nevertheless existing legislation can be expanded on certain lines. In the first place, registration of births and deaths should be made compulsory all over the country. Secondly local bodies should be empowered to give grants to recognised voluntary organizations such as those interested in maternity and child welfare work. Thirdly the Government official agency might frame regulations to ensure greater harmony between official and non-official organizations; and lastly, a Midwives Act, such as that already in force in Madras Presidency, is necessary to ensure the registration of all qualified midwives and nurses.

Probably most will agree that the time has not yet come when it should be made obligatory for local bodies to open child welfare centres, or to give pecuniary aid to poor mothers for a period before and after confinement. Local authorities in this country do not yet realise that expenditure on these lines, whilst giving a return not directly measurable in hard cash, is indirectly a profitable investment in that it assists in the development of a healthy people, the main asset to any community. Beyond these measures already mentioned, therefore, legislation is neither necessary nor advisable.

Summary.—

(a) At present little or no co-operation or co-ordination is to be found between official and non-official bodies in Maternity and Child Welfare work in India.

(b) Much can be done by non-official organizations in the preparation of health literature and in bringing to the notice of the people the advantages arising from Maternity and Child Welfare work. Official Public Health Departments should also conduct campaigns of education to show the advantages and economy of public expenditure for this purpose.

(c) By means of joint conferences and mutual assistance, without mutual criticism, gaps should be filled and overlapping avoided. The idea of joint responsibility should always be kept in the foreground.

(d) All programmes of non-official organizations should fit in with the policy of Government Public Health Departments.

(e) The provision by Provincial Governments of Health Schools for the training of Health Visitors is urgently necessary if progress is to be made.

(f) Legislation can only follow the development of an enlightened public opinion, but, partly from the legislative and partly from the educative point of view, measures (a) to improve registration of births, and maternal deaths, (b) to empower local

bodies to make grants for maternity and child welfare work, and (c) for the compulsory registration of all trained midwives and nurses, should be laid before Provincial Legislative Councils.

(d) No measure making it compulsory for local bodies to open Maternity and Child Welfare Centres would have at present any chance of being passed by Legislative Councils.

(I).—HOW CAN MORE UNIFORMITY AND CO-OPERATION BE SECURED IN CHILD WELFARE WORK?

DAGMAR CURJEL WILSON, M.D. (GLAS.), D.P.H. (CAMB.),
JHELUM.

India's present needs.

I take it that the object of this Conference is not to congratulate ourselves on what we have already achieved, but while duly acknowledging the many difficulties under which pioneer work has been established, to look forward and search for improved lines of future development.

The time has now come when it should be possible to secure more uniformity and co-operation among child welfare workers in India, time for the various sporadic efforts in this direction to give place to something more definite and concise.

Granted that at present there is in many places but little uniformity in the methods and often even less co-operation between the different bodies and organizations who are making child welfare part of their social activities, we are faced at the start with the difficulty as to what standard should be aimed at by the various voluntary and official organizations.

I think we must admit that hitherto in India much child welfare work so called, has been under the direction of people either lay or medical, who either from pressure of other work or from sheer misdirected goodwill, have often originated or countenanced in connection with child welfare, many questionable undertakings. There is no need to be discouraged at this, for we know that most pioneer work has to pass through this stage in every country, before it can be placed on an organised basis.

Importance of expert direction to ensure a uniform minimum standard of efficiency.

It cannot be too much stressed that neither the possession of a diploma in Public Health, nor a medical degree, nor a certain amount of knowledge of child-craft in themselves fit a person for the direction of child welfare. I have learned from hard experience that the best results are obtained when any such person to whom the direction of child welfare is entrusted also first familiarises himself or herself with some of the best forms of child welfare activities as now carried on at the more advanced centres in different parts of India, and then having decided what would appear to be the form most suitable for his or her particular local conditions, proceeds to adapt the result of his or her study to individual requirements.

The above I believe to be always true, with this necessary precaution that, while admitting the need of local modification, an attempt should always be made that, whatever work is carried on, should be on the lines of standard development evolved at the best centres. By this means it should be possible to manage that however limited, by financial or other conditions, the scope of work in any particular locality may be, yet the actual work undertaken can be arranged to meet a certain standard and thus be 'worth-while.'

Co-operation between various social bodies.

Co-operation in child welfare work, in my experience, can best be achieved by the formation in any district or city of some form of central committee on Health and social welfare. In some Provinces these committees are already appearing under different names—as Women's Councils, Provincial Health Week Committees, etc. Here representatives of various social organizations can meet and usefully discuss the inter-relationship of their various activities. Admittedly such movements are yet in their infancy, but they permit of infinite expansion, and from the child welfare point of view may be most helpful, provided that the representative of child welfare is a *real* expert.

(II).—WHAT ARE THE BEST METHODS OF RECORD KEEPING IN CHILD WELFARE WORK.

Standard records modified by local conditions.

If progressive work is to be attempted some standard method of record keeping must be adopted. I do not propose here to describe in detail any particular method of record keeping. Forms have been worked out at various large Health Schools and Centres, such as the Delhi Health School, the Punjab Health School, the Welfare Centres of the Madras Municipality, etc., and specimens can be had if asked for. It will be noticed from a study of these forms that various differences occur in different localities. A worker wishing to introduce record keeping into their own particular Child Welfare Centre, would, in my opinion, be advised to draw up their own individual forms consisting of such of the items of these standard forms as are relevant to the form of welfare work carried out in that particular locality. Having obtained a suitable form for keeping the record of any particular local child welfare activity, it is, I learnt when inspecting the child welfare centres, most essential that both those directing the work and those in charge and carrying it out should fully understand what facts are required under each heading and the way in which these should be obtained. Above all I would emphasise the importance of regular supervision periodically of the records by some competent authority, so that irrelevant

material may be eliminated from registers and material alone collected which may be of permanent value.

(III).—HOW CAN SCIENTIFIC INFORMATION WITH REGARD TO CHILD WELFARE WORK BE OBTAINED.

A qualified research worker required.

From (II) it will be realized that the difficulties of those who wish to obtain accurate facts with regard to child welfare in India are considerable, yet the need for accurate information from which facts can be scientifically deduced is very great, and for the want of this it must be admitted that in many places at the present time, much effort and labour and money is wasted. The number of questions which have been raised for discussion at this Conference alone show how great is our ignorance on many vital points. A research worker of note in India once remarked to me that every person who came between him and the material which he used doubled the amount of error. I think it is necessary that the scientific co-relation of the records of Child Welfare Centres should be in the hands of a child-welfare expert who possesses not only the requirements which I set forth in (I) but is also trained in statistical methods. Also from my own experience in obtaining material for research I think it is important that any such workers should themselves have direct access to the registers and visit personally the places from which they obtain their facts, that they may be fully aware of the local conditions under which these are obtained. In other words the work to be efficient should be carried out on a proper research basis.

(IV).—IS THERE NEED FOR AN ENQUIRY INTO THE CAUSES OF INFANT MORTALITY.

Knowledge regarding ante-neo-and postnatal periods required.

While in recent years there has been much talk in the Legislative Assembly and in Provincial Councils and other gatherings about the well-known causes which do contribute to the high infant mortality in India, such as poverty, ignorance, bad housing, defective sanitation, etc., we are yet very ignorant regarding the more intimate causes which, dating from the ante-neo-and postnatal periods, are so detrimental to the child's welfare. We do know what some of these causes probably are from the research work now being carried out in other countries, (I would specially mention the investigations under the Medical Research Council in Great Britain and the official health records published by the United States Government). But since we have learnt in regard to other morbid conditions that special factors intervene in India, I do not think we are in any way

justified in simply applying the facts now being obtained from this work in European countries directly to conditions in India.

Granted this, the question arises how is such enquiry in India to be carried out. We acknowledge that the work of a health visitor is primarily preventive and that often for administrative and financial reasons it is probably best separated from curative medicine. But unfortunately under these conditions Health Workers rarely come into touch with the large amount of material in connection with the maternity departments of our larger women's hospitals.—material which the medical staff, over-worked already with their duties of curative medicine, have rarely time to utilise.

It is clear that there is also room for the provision of a maternity and child welfare worker on the staff of any large Indian women's hospital. Not only could such a worker be of great use in forwarding the welfare of hospital patients, but under some form of supervision as outlined in (III) she might well keep simple records which could prove of immense value for research on infant mortality and welfare.

An Infant Welfare Research Centre.

In addition, I would plead for the establishment in at least one enlightened and progressive Indian city of a Child Welfare Centre fully equipped with a specially trained staff for the carrying out of ante- and postnatal research work on the lines of the best that is now being done in European countries, directed by a whole-time well qualified medical woman worker who has herself made a special study of such work.

Education of medical students in maternity and child welfare.

In order that a more general appreciation of the need of enquiry into infant mortality be brought before our educated Indian public, medical students should be shown the work of Infant Welfare Centres and questions on this subject should be set in the professional medical examinations of the various Indian Universities.

ORGANISATION II.

DR. R. YOUNG, DELHI.

I.—*How can more Uniformity and Co-operation be secured in Child Welfare Work?*

It is probably not possible nor desirable to secure rigid uniformity throughout the whole of India. Conditions vary too much in the different provinces, and one problem is pressing in one province and another in a different one. Nevertheless a certain amount of co-ordination is necessary for all India and ought to be aimed at. The work of an All-India Association such as the Lady Chelmsford League can accomplish something in this direction by forming a sort of bureau of information, by supplying literature and propaganda material, by visiting centres and giving advice about the work, and, not least, by organising conferences, such as the present, from time to time, where those interested in the subject can meet, discuss, and exchange opinions. The work of a voluntary association is, however, limited, and its usefulness is temporary. The whole history of the movement shows this clearly. Work started on a voluntary basis inevitably gives way, ultimately, to work undertaken by the state in the interests of the citizens. A body such as the Chelmsford League has many years of usefulness before it still, but I cannot doubt that, in the long run, its work will be undertaken by the Government itself and that a place for a woman officer will be found in the office of the Public Health Commissioner. This is an aim to be kept in mind, which it is desirable to achieve, but at the same time it will not advance our cause to plead for it unseasonably, nor press for such an appointment when neither the general public, the legislators, nor the officials of the department; are ready for such an innovation.

A degree of uniformity throughout India can also be secured through enforcing a certain standard in the training schools for Health Visitors. At present there are four Health Schools in India which receive grants from the Lady Chelmsford League, and two which do not. Of these six it can be said that three have an approximately similar standard, while the other three have a lower standard of training. It may not be possible at present to have an uniform standard throughout India, but it is obvious that if Health Training Schools had similar syllabuses and standards, the workers they turn out would have similar aims and this would tend to unify the work. Ultimately, again, such a uniform standard can only be obtained by a central authority.

So much for co-ordination throughout India as a whole. We have seen that it is limited in extent and for detailed organisation we must work within the various provinces. Even the Public Health Commissioner himself has little power in provincial matters since the Reform. The provinces have secured autonomy in Health matters, and we cannot expect, or even, desire, that they should be content to be ruled by a central authority. To organise work within one province is a much simpler matter, and it ought not to be difficult to secure more co-operation and a certain standard of uniformity. Most of us know, however, that this standard barely exists, and that we find within one province a large variety of work and little attempt at co-operation. In only one province of which I know is a serious attempt made to secure a uniform standard of work, and that is significantly the province which possesses a Director of Public Health keenly interested in the work, who has a whole-time woman worker under him appointed for Child Welfare work.

At present what we find in most provinces is that while many bodies are willing and anxious to have a high standard, others are satisfied with a poor performance which is lacking in sound aim and can never achieve lasting good. Many, too, start work either because they are urged to do so by zealous officials or their wives, or because they have a vague idea that they must do what other places do, but they are extraordinarily ignorant, not merely of the methods by which the work should be conducted, but of the object of the work itself. Such work must either be improved or die, and if there is no authority to secure either improvement or death, such organisations drift on, achieving no real good, and often bringing the whole movement into disrepute.

The only way in which this deplorable state of affairs can be remedied is by having one person in charge of the work throughout the whole province. Such a person may be employed either by a voluntary agency or by the Department of Public Health. Ultimately (again) the latter is the ideal to be aimed at, and will almost certainly be realised in the long run; but in the meantime a voluntary body may quite well employ such a worker, especially when it has funds at its disposal to give grants in aid to various centres. We cannot overlook the fact that the body, be it a voluntary association or a Government department, which holds the purse strings, has the real power. Those carrying on the work may be quite impervious to suggestions for improvement and all sorts of good advice, but a threat to cut the grant will usually bring them into line. I do not suggest that it is politic to use this weapon, but the fact remains that paymasters are the ones who can exert real

pressure. From this it follows naturally that if a provincial voluntary society has sufficient funds at its disposal it can direct the work of a whole province: if not, it cannot do more than help and advise, and cannot bring pressure to bear on a society which prefers to go its own way.

Local bodies, such as municipalities and district boards, are already spending money out of their revenues in support of child welfare schemes, and will probably raise more as time goes on. We cannot, however, avoid the conclusion that in the course of time grants from the provincial revenues in the Health Department will be made towards the work and that therefore the Director of Public Health, or his deputy, will have control of it. This may seem very far off in some provinces, but as a matter of fact it is very near in one, and is only a matter of time in others. The length of time depends directly on the keenness of the Director of Public Health and his staff, the present state of advancement of the work, and the educability of the public of the province in health matters.

A word may be added as to methods of work, and the duties of the officer suggested. Assuming that there is a central authority for each province, either in the employment of a voluntary society or an officer of the provincial government, what will be the position and duties of such a person? In North India at least this officer must necessarily be a woman. She should have, besides a medical qualification, a diploma in Public Health and special experience in the work. I assume for the moment that such people are only waiting to be employed. (They are not, but demand will create supply and it is worse than useless to start with the wrong kind of person). A large part of her time will have to be spent in touring the province and money will have to be set aside for this purpose. Such an expense will be amply justified by results. It must be remembered that our Health Visitors and the bodies employing them are tender seedlings which need any amount of coaxing, feeding and watching to enable them to grow into strong healthy plants which will stand without support. Apart from this inspection work there would be propaganda of various kinds to do, advising by letter, planning new schemes and last but not least, observation of results. The last named could develop into a valuable piece of research in the right hands.

In the foregoing I have assumed that Health Visitors are available to carry on the work. This is not the case at present, but a sufficient supply should be forthcoming when the country is sufficiently advanced to take up such a scheme.

What I have written applies more to the subject of uniformity than of co-operation. The latter has to some extent been dealt with in the papers in the previous section, and I do

not feel that it is so pressing a problem. In large towns there may be division of interests and even rival efforts, but the mere fact that an officer such as I have described above, existed, would tend to prevent such things occurring and the officer would be able to secure co-operation where such was required. Voluntary societies usually have local officials on their committees and besides are seldom able to support the work entirely from their own funds, so that their work can be controlled in this way.

II.—*What are the Best Methods of Record Keeping in Child Welfare Work?*

My opinions on this subject are to be found in a pamphlet published by the Lady Chelmsford League "Record keeping in connection with Maternity and Infant Welfare work" which can be had, on application, along with specimen forms. I do not therefore propose to write at length on it.

All records should be kept on the card index system, and as far as possible the method should be similar throughout the country, or if that is not possible, throughout the province. The cards should be of three varieties, at least, those for antenatal work, those for infants and those for toddlers.

The card index system secures that the history of any individual, whether expectant mother, infant, or toddler, is available at a glance. At present in many places such information is scattered through registers and not available. If a Health Visitor or other worker is asked questions or has to give a yearly report, she can only give her general impressions, she cannot support her statements by evidence. This is a great drawback. The card index system makes the work of inspection easy, another great advantage. This is especially the case with home visiting which is not always carried out systematically. Further, it enables any one inspecting the work to judge accurately as to the quality and quantity of a Health Visitor's work. It can be easily known how many visits are being paid, how many are attending the clinic, and how many antenatal cases are under observation. This is a different matter from merely totalling the day's work. A large number of children may be attending a centre and yet the quality of the work may be poor because the children attend for a few days only and not continuously. The people who find the card index system difficult are those who are either not conducting the work in the right manner, or else those who are dealing with a floating population.

Training in the method is helpful, in fact almost always necessary. All Health Visitors' Training Schools should be required to adopt the method in their teaching centres, and

if this is done the students will be thoroughly accustomed to the method before going out to work on their own.

Such training should include instruction, not merely in the card index system, but in keeping up various registers, such as stock books, attendance registers for classes, and in writing official reports and letters in proper form.

III.—*How can Scientific Information with Regard to Child Welfare Work be obtained?*

This is a difficult question. Up to the present time very little has been done to which the word "scientific" could be applied. Child Welfare work is being conducted in many places in India, but not always on scientific lines. The cause of this is partly that local bodies undertaking the work, have frequently no idea what the real aim of the work is, and partly that those who are doing the work, i.e., the Health Visitors, are for the most part not highly educated and not especially trained in scientific method. This point needs some elaboration and a digression is necessary. In the programme of this conference there is no discussion on "What is the object of Child Welfare work." The assumption is that we have all made up our minds on this question and know definitely what we are aiming at. But do we? The delegates to such a conference as this may be supposed to know, but I question if all have a clear idea in their minds and I am quite sure the bodies they represent do not. Unless and until we have the aim clearly before us it is quite impossible to begin to collect scientific information. Stated as broadly as possible the aim of our work is *Health*. There are however two methods of securing health. One is the prevention of disease, the other is the cure of disease. Our method is the former and we must be quite sure that we are following it as much as possible. Yet what do we find? As a matter of fact we find frequently that Child Welfare work is conducted on the latter method and not the former. To give illustrations. A certain place is visited: we go to the Child Welfare Clinic: we find the clinic attended by children suffering from minor ailments; we find bottles of medicine which are given freely, apparatus for dressings, etc: gynecological treatments being done. We may or may not find a pair of weighing scales; we find on looking at the register that the number of visits paid by new patients is as many as the number of revisits; we find milk distribution; doles of congee, and even patent foods given away. What we do *not* find is regular visits by healthy babies and toddlers, antenatal cases being systematically supervised, propaganda work effectively done. Work such as I have described is not true Child Welfare work. It may alleviate a little misery, but it has no constructive basis and it cannot hope to reduce

infantile nor maternal mortality, and it will certainly never give scientific information about anything.

In order to secure scientific information, we must first and foremost see that the work is conducted along right lines with the root idea of *Prevention* behind everything. It is true that people take a lot of converting to this idea, but in my opinion it is much better to do a small amount of work along the right lines and wait patiently for results, rather than yield to popular clamour and conduct a fifth rate dispensary which has no lasting value.

The first essential then, is to convert and convince the organisations responsible for the work whether they be municipal or voluntary. This means *intensive propaganda work*. The woman officer described above would have this as part of her duties. I shall not attempt to describe how it should be done. The worker must be infinitely adaptable and use all legitimate means to convince the Committees running the work, and the public.

The second essential is well qualified health visitors. This is however being dealt with in a separate section. I would only say in passing that good general education is most essential, and that if we want well educated women, we must pay them decently. This is another point on which Committees badly need conversion. They grudge a high wage because the Health Visitor cannot do the work of a doctor. If they understood the real value and possibilities of the work the salary required would be more cheerfully paid.

Having then secured that the work shall be carried on on the right lines, that is, that it shall be strictly preventive, how are we to secure scientific information? First of all we can gain a great deal of information through the Health Visitors if they are of the proper standard and keep their records well. For example, a Health Visitor carrying on a well developed antenatal work can, from her records only, supply a mass of facts. Suppose a Health Visitor to have 150 antenatal cases pass through her hands in one year. In five years time she will have a record of 750 cases. Any one investigating these records has enough material on which to base a statement of the incidence of departures from normal in pregnancy, the number of cases of eclampsia, contracted pelvis, anæmia, antepartum hæmorrhage, etc., which occur, the number of cases which are confined by indigenous dais, trained dais, in hospital, or by private practitioners. In addition she will have information about the nature of the confinements, the maternal and neonatal mortality and so on. All this information is just what we want, but it is not now available. Take another example; a Health Visitor conducts an Infant Welfare clinic

and does home visiting among infants. Suppose 250 births are registered in a year and she keeps track of them all. At the end of one or two years she should have information on the chief causes of infant mortality, what is the relation of infant mortality to such factors as housing, poverty, climate, employment of mothers and so on. At the end of five years she should be able to show whether or not her work is reducing the infant mortality and in what respects. Again these are the things which we want to know and ought to know but at present do not know.

It may not always be possible for the Health Visitor to be able to work up the material she collects by herself. But if not, the officer in charge of the work may be able to do so as described above.

Ideally, I should like to see a medical woman doing such a detailed piece of work. But under the present circumstances it does not seem possible. There are too few medical women to be spared for such jobs and no money to pay them for doing them! It is not ideal that a research worker should depend on second hand information for her material and only the thorough training of subordinate workers can make such a position tolerable.

We should, I believe, be able to secure more information from the women's hospitals. In hospitals for example with a large amount of maternity work, valuable information is being lost to us all the time. I am not criticising the officers in charge of such hospitals. They are up to the eyes in work and cannot do more. But more could be done were there additional workers. A Health Visitor attached to a maternity hospital or department could do a great deal of valuable antenatal work which is at present being left undone. The development of antenatal work would not only give us a great deal of valuable information, but it would be an immensely valuable piece of work in itself. It would reduce maternal mortality and morbidity and neonatal mortality by leaps and bounds. Ever since women doctors began work in India they have had their hearts torn by the abnormal cases which they are asked to go to in the homes or which come into the hospitals. *Yet there has been practically no attempt at the prevention of these things by antenatal work.* If funds, and therefore additional workers, were available a move could be made towards systematic antenatal work which would have great practical results as well as providing us with much information at present lacking.

Scientific information if it is to be obtained means scientific investigation. Those directing the work must be capable of doing this themselves and of setting others to work in the manner indicated above.

IV.—*Is there need for an enquiry into the causes of Infant Mortality?*

My answer to this question is—yes. If we want to reduce the infant mortality rate we must obviously know what the chief causes are so as to work along sound lines. We all have theories as to the causes and doubtless many of them are correct. But these theories need to be backed up by more exact information and scientific proof. Only in this way can we attack the problem along sound lines. At present we are undoubtedly hampered by our want of knowledge and hence our attacks are not efficient and money and effort are, if not wasted, at least spent in an aimless fashion. There is no need to elaborate this point, it must be obvious to all. What we may not be unanimous about is the nature and methods of the enquiry to be made. Obviously one enquiry will not do for the whole of India. Conditions vary enormously and a cause which is potent in one province may not operate in another. The alternative plan of a worker travelling about and making enquiries will not lead us much further. Any information got in such a way would not differ substantially from that which we have at present. Any one pursuing an enquiry on this subject must get her information at first hand, or else be able to refer directly to the records made by others.

There seem to me to be two possible methods of conducting such an enquiry. One will be that outlined in the previous section, namely that the medical woman at the head of the work for the province should make it with the help of her subordinates. She would have to train those working under her in habits of accurate observation, in methods of recording facts, in knowledge of what facts are to be obtained and how. The success she would have in these attempts will depend on the quality of the subordinate workers, but should improve as time goes on. She would have, of course, to check their observations and results as far as possible and have the ability to put them together in a coherent fashion. I think a good deal could be accomplished in this way if the officer were keen and interested.

Secondly there is the plan of asking a medical woman to do a serious and detailed piece of research in any one place in India. It might take the form of conducting a child welfare centre together with systematic visiting of all births in a certain area, such visiting to be continued up to one year. In this way the cause of death could usually be verified by an expert.

This method has both advantages and disadvantages. Its advantages are (1) The worker will get absolutely first hand information. (2) The work will be very complete and detailed. (3) The facts will be (or should be) incontrovertible. The

disadvantages are (1) cost (2) the information obtained will apply to only a small area of the country.

In either case the work would be slow. Such an enquiry to be fruitful should be conducted over not less than three years, it might be five. This seems a long time, but it is not too long for the work to be done. We are usually in much too great a hurry to get results. No investigation which pretends to be scientific can be done quickly. As indicated above this is a difficult and expensive plan, but it would undoubtedly give the best results for any one part of India and would appeal to a scientific organisation such as the Indian Research Fund Association.

**CHILD WELFARE WORK AND THE FACTORS
CO-OPERATING THEREWITH.**

DR. K. S. SETHNA, B.Sc., B.Hy., D.P.H., D.T.M. & H.,
L.M.S., MEDICAL OFFICER OF HEALTH, DELHI.

In the history of civilisation the question of infant mortality must always constitute a serious and dominating problem as it has now been fully recognised that the future destiny of civilised races is contingent upon the close application of medical science to the infant problem. It is a deplorable but nevertheless a true fact that great numbers of infant-children perish every year, who might very well have been spared to grow up into healthy men and women, a comfort and support to their parents and useful members of the State. The preventable sacrifice of infant life is still a blot on the sanitary administration of this country. In spite of the great progress in sanitary matters which has been made in other directions, the rate of infant mortality in India is still appalling.

Infant Welfare work comprising as it does—maternal welfare and antenatal hygiene, therefore, naturally forms a most important and far reaching obligation upon the State and the sanitary authorities.

Although the present time may not be appropriate for India as a whole for the launching of elaborate schemes of public activity involving considerable expenditure, there is much to be said for framing and initiating comprehensive schemes for the care of infants even though immediate application may be only partial. Such delay will not be entirely harmful. Many new problems, peculiar to India, which have not yet received adequate recognition or attention, are likely to present themselves for solution, and fewer mistakes and false beginnings will be made if sufficient time has been available for a full consideration of our particular needs and the steps by which they may most successfully be met.

The practical question before the Nation is the saving of child life and the rearing of healthy children. These two problems are inseparable: because it should be realised that for every child life that is saved some other child is reared in a yet more healthy manner. A child is a living unit from the time conception occurs in the mother's womb. It will therefore be readily appreciated that everything that helps the mother, helps the child. The injurious influences affecting the physical condition of a child therefore arise more from the habits customs and practices of the mother herself than from external surroundings or conditions. The health and physical fitness of a child are dependent to a marked extent on the health of the mother, her capacity in household affairs and her knowledge of

infant care and management. Hence what is required is a healthy motherhood and the art and practice of mothercraft for rearing of healthy infants and children to turn them into healthy and useful citizens.

I would ask you not to regard infants and children as objects of mere scientific study. They should not be considered as models for the application and testing of theories. They are in fact growing beings and in the course of their life they will have to face their own difficulties in this world. It is therefore up to us, who are already grown up, to remove their preventable difficulties in their tender years, to protect them from ailments and diseases which are preventable and to extend to them every possible facility so as to enable them to grow up into men and women of good physique and sound health that in days to come they may be the joy and the treasure of this great country.

I am sure every one will agree that an infant is the most helpless living creature on the surface of this earth. It is indeed far more helpless than the little one of a bird or an animal. It is for these reasons that the whole civilised world is now interesting itself in the movement for the welfare of children. The motive attached to this laudable and much needed movement is partly one of humanity, and is the outcome of logically recognising the fact that in these modern days of stress and competition no race or nation can permanently prosper or make real progress unless justice be done to its mothers and infants. Child Welfare work is not a show that can be properly and profitably run by a person or a group of persons. This work necessitates the service and willing co-operation of all those who have to play their different parts on the stage of life to raise up a nation full of vigour, full of health, and full of good character.

Child Welfare work therefore is one of "prevention rather than of cure". It does not in reality attempt to make the sick child well, but it endeavours to keep the child from falling sick at all. The expectant mother before the baby is born, gets in touch with a trained worker, who advises and helps her so as to enable her to fit herself to bear the strain of confinement and make the labour as simple and normal as possible. Maternity homes and trained medical assistance are provided to ensure the safety of the mother and the child. If by reason of inexperience, ignorance, ill-health or poverty the mother is unequal to the task required of her, trained Health Visitors are provided to visit her, to enlighten her on her duties, to assist her in the proper rearing of her child and provide her with such necessities as will enable her to maintain and even increase her strength and vigour so that she can lead her infant safely and surely through the most difficult period of its existence.

Welfare centres are provided which the mothers can freely make use of to their own and their children's advantage. Health talks, schools for mothers, hygiene classes in schools, milk-depots, creches, Baby weeks and such other allied activities working co-ordinately and in co-operation circumscribe in general the sphere of this work. To achieve the desired result in child-welfare work therefore requires the sympathetic co-operation of all those who have to play their respective parts according to their different spheres and vocations in life in building up a healthy and vigorous Nation.

Governments and public bodies of various countries have now realised that a nation's greatness depends on its children and the facilities provided for their welfare and progress, and not simply on its high financial status. What will be the value of money if there is no life to utilise it with advantage? A Government or a Local body with a heavy bank credit and a concomitantly heavy infantile mortality can never boast itself that its duties have been well and fully performed. As the Government has established departments for the progress of Education, Sanitation, etc., in the same way it has an obligation for the formation of a linked up sub-department for the welfare of mothers and infants of the Country. Just as certain obligations have been imposed on every Local Government and Municipality for the appointment of certain Officers of approved qualifications, on suitable salaries, similar conditions should also be enforced for the employment of trained persons for the work connected with the welfare and progress of the children of its country. Necessary legislation accompanied by adequate financial assistance will go a long way in placing child welfare work on a good footing.

The public health of a city or town is controlled by its Local Board or Municipality and it is therefore up to such a body to show a much greater interest for the welfare of the mothers and children of the area it represents.

Municipalities and local bodies have begun to realise that for too long a time they have spent money at the wrong end by the provision of hospitals, asylums, sanatoria, etc., and now recognise the importance and value of starting with child welfare work. If success is to attain the solution of the problem of child welfare, it must remain primarily an obligation resting upon the Local Administrative bodies which deal with public health and the Local Health authorities should appeal for much greater voluntary effort and assistance from the benevolent among the general public. The success of this work will, to a considerable extent, depend on the degree of co-operation and kindly help which they receive. No doubt more will be expected from the specific effort of the Local Municipalities than from voluntary

efforts because the statutory application of powers and the utilization of public funds imply a powerful factor which voluntary agencies do not possess. The chief agent through which a local body can organise Maternity and Child Welfare work is its Medical Officer of Health, who is also in charge of all multifarious sanitary and public health work which devolve upon him. He is in fact a guiding, controlling and supervising authority and being a man, the Maternity and Welfare work has actually to be carried out by a Lady Superintendent. The Superintendent should generally be a qualified medical woman and assisted by a certain number of Lady Health Visitors, midwives and dais. The success of this work will to a great extent depend on the personality and qualifications of these women workers. It should be the duty of every Municipality to see that every such worker, besides being suitable for the post, is in possession of proper qualifications required of her for this work, is adequately remunerated for her labours and is encouraged in her good work. On the other hand these women workers should be anxious to do the best thing possible for the mothers and children of the place, should be tactful and should be in a position to study their cases carefully with the most recent scientific application of the knowledge. They must not only show themselves, but also prove themselves, friends to the women and must make them feel that they really want to help them. They must remember that no women will come to them, if they feel that they are only going to be lectured to on their deficiencies or defects, and scolded to make them rectify them. The trained workers must make the woman feel, that they are there for the welfare of these women and their children and by tact they should teach them without letting them know that they are being taught. The co-operation of the midwife is a matter of great importance in the success of Maternity and Child Welfare work. Among the class specially affected by such work, the midwife is often more intimately in touch with the mother than any other person can be. She is the attendant selected by the mother herself to come to the house, the doctor is merely called in an emergency and is but a passing visitor. The Health Visitor is uninvited and sent by local public authority as the chosen attendant. The midwife is always more welcome and to a greater extent the recipient of the mother's confidence than any stranger or official deputed to visit her. It is for this reason that the midwife must necessarily come into special prominence in every stage of a complete scheme for infant and maternity welfare and antenatal hygiene. The midwives in a very large majority of places in India are generally untrained and illiterate women, who are obsessed with the notion that they inherit their knowledge in midwifery from their mothers, grand-mothers, and great grand-mothers.

They are people who believe that the knowledge of midwifery comes naturally to such women just as a duck takes to water. Since the last few years some active work is being done to train the dais of this country and the reports received from all those places where this work has been taken in hand and pushed on, show that the public, including the mothers, of those places have begun to realise that by the help of trained dais and midwives confinements have been rendered more comfortable as well as simple and normal. Although it has been recognised by the Government, local bodies and many other institutions concerned with Child Welfare work, that the country needs qualified women for attendance on mothers during their critical period of confinement, yet in India there has still been great difficulty in persuading the Legislature to check and control the malpractices of the untrained women in midwifery work. In England the Midwives Act of 1902 has marked a distinct progress in improving the midwifery conditions of that country, while in this country, the illiterate and untrained dais carry on their destructive methods with impunity, which although they may not lead to death, leave permanent defects in women which could have been prevented by trained and skilled assistance. I am prepared to agree that the time has not come in India yet for the introduction of a Midwives Act, still I would strongly advocate that an initial step, however meagre it may be, should be immediately taken for licensing of trained Midwives and dais and registration of untrained dais. It may be asked of what good it would be to bring an untrained and illiterate dai on the register? My reply is this. In the first place she can then be enforced to attend lectures on the most elementary principles of Sanitation, Hygiene and Midwifery. She can then also be forced to call a trained midwife to supervise her work, failing which her name would be struck off from the register and she would be prohibited from carrying on any more work in Midwifery as only those dais whose names appear on the register and possess a permit to do midwifery work will be allowed to do midwifery cases. It should be made an offence under the law for any woman who is neither licensed or registered for midwifery work to carry on this work. I would not at present advocate the total prohibition of dais from doing midwifery work. This is for two reasons. In the first place we have not here a sufficient number of trained women to meet the requirements for midwifery work, secondly that dais are still more welcome than the qualified midwives in many Indian houses. But by Legislation a period should be fixed after which no untrained, or unqualified midwife or dai should be allowed to carry out midwifery work and the legislation must be much on the lines of the Midwives Act of England.

The environment of the infant is its mother. The health

and physical fitness of an infant are dependent primarily upon the health of its mother, her capability and her knowledge of infant care and management. The fundamental requirements in regard to this particular problem are healthy motherhood and the art and practice of mothercraft. Given a healthy and careful mother, we are on the high road to securing a healthy infant. From healthy infancy, we may expect healthy childhood and upon healthy childhood may be laid the foundation of a nation's health.

If mothers could be taught how to take care of infants, we might hope to diminish not only the high rate of infant mortality, but also the large amount of unnecessary ill-health and physical suffering caused by neglect in infancy and childhood. It must be remembered that the evil of a high infantile mortality does not only involve the actual loss of infant life, but also tends to maim and injure infants and children who, passing under evil and unhealthy conditions, yet survive and bear the marks of lower vitality with less ability to resist diseases all of which could be prevented under proper management. While it is undoubtedly true that external insanitary conditions exert an injurious effect, it will be found in practice that the high infant mortality rate depends in great measure upon the conditions of the domestic surroundings, upon the health of a mother and upon the intelligent care which she is able to bestow on her child. Ignorance and incapacity of the mother respecting the conditions necessary to healthy infancy are too patent. Unfortunately we too often find young people recklessly entering upon the marriage stage with its resulting responsibility, as regards the rearing of children, who are totally unfit for the task required of them, who know nothing about children, either as regards feeding, clothing or educating and who are often little more than children themselves. Many young couples are often seen in their teens, whose knowledge of domestic economy is nil. The ignorance or lack of education of mothers is not always the only factor responsible for the improper bringing up of their infants and children. It has often been noticed that mothers show a pathetic struggle to do the best possible for their infants. For example, all mothers know that breast or cow's milk is the best thing for an infant, but when the former fails the latter on account of their poverty cannot be obtained. They do not know the best substitute and make many injurious mistakes. All mothers know that a child sleeps better in a bed by itself with clean bed clothes. But with a mixed family in a room they must resign themselves to the inevitable by placing 2 or 3 children in one bed with a scanty supply of bed clothes which often have to be washed and used again the same night. It has been brought very forcibly to my notice that mothers are most anxious for knowledge and capable

of improvement if only they could feel that those giving them advice took a real interest in their welfare and that of their children. The object of this work therefore should be to increase the sense of parental responsibility. This sense of responsibility must be stimulated by giving them instruction in the duties of motherhood and by inspiring them with the hope that the community is standing by them and willing and able to help them and their children in the battle of life. Thus with good sanitary surroundings, a well managed clean house, breast feeding and proper instructions to the mother much can be achieved.

The father has his responsibility, which is by no means less than that of the mother, towards the welfare of the child. Nothing has struck me more in connection with the enquiries I have had occasion to make in relation to the conditions connected with the Maternity and Infant Welfare work than the fact that the husband only gives to the wife enough to cover the bare necessities of existence while he himself conceals his actual earnings. The result is that the woman during the years of her life when she is bearing and rearing children is subjected to undue physical stress and undue mental anxiety. I think proper safeguards should be instituted with the view of eliminating this inequality which is not in the national interests. Every father should realize his responsibility both for the welfare of his wife and child as well as for growth and progress of the nation. He cannot stand aloof leaving all the burden of rearing his children to be shouldered by his wife only. He is the money getting factor for his wife and child, but his duty does not end there. He must be kind, sympathetic and should co-operate as far as he possibly can in addition to pursuing his daily vocation of life, towards the happiness of his own home and thereby of himself.

Girls are in fact the future mothers of the nation and hence if they could be taught before they get married and become mothers, the art of maintaining cleanliness, rearing of infants, sewing the necessary clothes, and if they could be given education to make them fit for the work that will naturally in future years devolve on them, much benefit could be derived by making them efficient at the time of need. But what do we find at present? A great many of the girls in India have no education at all and of those who go to school, a great many learn practically nothing about how to keep a house or to look after children. Poverty among a large number of people has forced grown up girls to take up jobs without attaining much of domestic knowledge while others get married and soon have children but have no idea how to look after them. It is not that they do not want to look after the children but simply they do not know how to. Hence in every girls' school adequate

knowledge should be given to the girls in the art of domestic economy, sewing of necessary clothes, rearing of infants, maintenance of cleanliness and such other allied subjects.

It has often been noticed that in spite of their youth they take an eager and intelligent interest in what they are taught and particularly systematic lessons in mothercraft are always popular. It is not necessary to provide an extensive or exhaustive knowledge of infant care and management. All that is necessary is to train the girls in details of the ordinary nursing care of the baby, such as the methods of washing, dressing and clothing of a child as well as house-keeping and personal hygiene and these are certainly not beyond their intelligence. Practice in these details can do no harm and may lay the foundations for a wise and careful treatment of their own children in later years. The lessons should always be practical in their application and should be directed towards developing and forming the health conscience of the children and lead to a desire and ambition to put the principles embodied in these lessons into practice in their own homes. The teaching given at the school frequently conflicts with some habits and practices with which the girls are already familiar, and the influence of the home being naturally stronger than that of the school, it is probable that if a hard and fast line be drawn between the school maxims and the home customs, the teaching may be to a large extent forgotten or discarded. To avoid this it is eminently desirable to enlist the hearty sympathy and co-operation of the mothers. In a girls' school, the teaching in infant management should be regarded as a culminating point of the teaching of hygiene throughout the school life. The girls should be made to appreciate that intellectual attainment is not the only issue of true education, and that in learning the art and practice of infant care they are helping to secure for themselves their true place in the future of the state, and as mothers of healthy children they will in days to come stand as builders of a healthy and progressive nation.

Industrial conditions have great influence on child life and infant mortality. When the husband's wages are scarcely enough to make both ends meet, the wife tries to make a further living at the cost of neglecting her own duties towards her home and children. The result is that both the home and children are bound to suffer. Personally I should like to see a law passed, if it be practicable, entirely prohibiting the employment of married women who have young children except in the case when the husband is incapacitated from work, so that the mother's care and attention may be wholly occupied in the right direction towards looking after their homes and their children. In many industrial concerns it has been noticed that a large number of women labourers are employed. It should be made incumbent

on the employers that the expectant and actual mothers, if they have to make a living by working, are not put to unnecessary strain during the period of the delicate condition of their health. The hours of work during that period should be curtailed without causing any loss to them in their usual earnings. It should also be seen that no woman is employed in any industrial concern a month before and a month after her confinement and there should be provision under the Maternity Benefit Act to enable her to continue to receive her usual wages during this period. Creches are indispensable at all industrial concerns in which there are women workers.

I have already stated that with the spread of education among the public many good results can be attained and the effects of these will be far reaching and beneficial. We know that there is nothing that can replace the love of a mother for her infant. But the greatest love, however, is not sufficient in itself. It should be accompanied by a practical knowledge of the requirements of a child; this is indispensable and has from time to time been confirmed by the experience of competent persons. Health and Education are inseparable twins. The methods by which education can be promulgated are as under :—

- (a) By Lectures.
- (b) By Practical and Lantern Demonstrations.
- (c) By Health talks.
- (d) By Leaflets, Posters, Booklets, etc., on matters pertaining to Health and Child Welfare.
- (e) By Schools for Mothers.
- (f) By Museums containing pictures, models, etc., on the subjects connected with Hygiene, Child Welfare, etc.
- (g) By Monthly Journals.
- (h) By Pardah Clubs.
- (i) By Baby Shows.
- (j) By Health Weeks.
- (k) By Mothers' Days.
- (l) By Fathers' Days.
- (m) By Sewing Classes, etc.

All these about which I need not go into details have proved very beneficial in the spread of knowledge.

Health Schools for the training of Lady Health Visitors have been started in a few provinces but a much larger number of these schools are required and they should be under the control of a central governing body so that the class of teaching be uniform in all such institutions.

The idea of having Infant Welfare Centres or Baby Clinics has already begun to penetrate the public mind. The news of

its work and that of other organised helps to healthy babyhood is leading to an urgent demand for greater and more responsible interest in this vital factor of our National life. The great object of the Welfare Centres is to get hold of the babies directly they are born and more than that, to get the women before the children are born to them, so that the health of the future generation may be improved by getting into personal touch with both the mothers and their children. The Antenatal and Maternity work must be assisted and co-ordinated with the centre work proper with the view that the scheme should undergo its full development. Moreover the co-operation of voluntary workers would be a very benefiting factor for the utility of the centre; as the usefulness of the centre will always to a considerable extent depend on the degree of co-operation received from the public. The utility of a centre is not necessarily to be measured by the expense of its up-keep. It must be admitted that money expended in a way which will not only keep the child alive, but cause it to grow up a healthy and useful member of society is money well spent.

The Welfare Centres should be connected with Maternity Homes where women can go for their confinement either free of charge or at a very reasonable cost. The tendency in the present days to patronise the Maternity Homes and Hospitals has been distinctly on the increase to the benefit of the Nation.

The Welfare Centres are really meant for preventing illness and hence these institutions cannot advisedly be turned into dispensaries for treatment of the sick. There is no objection to giving minor medical relief at the Welfare Centres, but the Centres should not be taken or viewed as substitutes for the dispensaries. Although both these classes of institutions should be kept separate, yet it is highly advisable that there should be co-operation between them so that after recovering from an illness, a child is sent to a welfare centre where its mother will be advised how to avoid such an illness in future.

The sympathy and co-operation of general medical practitioners in Infant Welfare work is indispensable. The general Medical practitioners form the first line of defence in the health of a Nation and hence a scheme lacking in this co-operation is apt to be futile.

In connection with child life the control of milk supply is also important. The matter of obtaining an unadulterated and pure milk supply has concerned practically every local body and the advisability of opening Milk Depots under proper supervision, as a co-operating factor in the movement of Child Welfare cannot be over-estimated.

The influence for good or bad upon the life and health of an infant of the tendencies it inherits from its parents can

scarcely be over-estimated. Degradation drunkenness and vice, whether in father or mother, are only too apt to be handed down as loathsome heir-looms. It is sad to think that the sins of the parents should be visited upon the children but we know that it is so.

Recent researches prove that a large number of infants born inherit specific diseases from their parents. These if unattended leave a poor chance to the children to survive through the difficult and tender periods of their age. Anti-venereal centres co-operating with both the general medical practitioner and Welfare Centres would indeed be beneficial for the amelioration of the conditions now witnessed. Desirable, however, as it may be that some check upon the marriage of unsuitable persons should be exercised by the State, it has hardly as yet come within the sphere of practical public health. Medical certificates before marriage and notification of pregnancy are remedies to check the sinister influences on a baby's chance of life but these are yet too far off to be discussed at this stage.

With the spread of knowledge, prevention of conception has become more and more common. Prevention is practised because people concerned do not want to have children. In other instances the practice is adopted by people who desire to have children but cannot afford them. The State requires children and the State must therefore assume greater responsibility by encouraging large families and rearing the children in a healthy manner and under good conditions.

It is frequently questioned whether birth control information should be given, how it should be given and by whom it should be given. The general medical opinion in England has now been that having regard to the great poverty among the populace and the great shortage of present housing accommodation, some instruction on birth control may in certain cases be given, at the Welfare Centre when the mother attends and is known, and that such advice be only given by, or under the directions of, a qualified medical practitioner. But on the other hand it is generally agreed that the indiscriminate dissemination of knowledge of methods of birth control is detrimental to the Welfare of mothers and children and will lead to an increase of promiscuity among the young.

Child Welfare work also requires the co-operation of chemists, viz. by withholding the sale of longtube bottles, baby soothers, and abortifacient drugs, until legislative measures are introduced to prohibit the sale of these.

Infant and child welfare centres in addition to promoting knowledge of the hygiene of the infant and young child should also be used as institutions for scientific research, viz. for investigating the conditions of life, the social state and the

sickness and death statistics of the people for whose benefit they are established.

For getting better knowledge of this subject the system of record keeping at all the Welfare Centres should be uniform and detailed.

Infant mortality is a highly complex problem and full benefit of special measures directed against this evil can be obtained only if they are coupled up with general measures for sanitary and social improvement. A condition of lowered vitality is characteristic of many of the children and this is produced by insufficient air, insufficient light, insufficient space and sleeping accommodation which leave them an easy prey to an infection and lessen their resistance to any special strain, such as the usual diseases of childhood, which are so easily got over by children in better circumstances. The first thing needful to be done is to raise the standard of sanitation of the poor home by exerting a reforming influence upon its presiding genius—"The Mother".

Poverty among parents should to a certain extent be met by free supply of milk to mothers, both expectant and actual. Maternity packets and babies clothes should be given free of any charge to the very poor and at very reasonable prices such as would be within the reach of the middle classes. The supply of midwifery outfits to dais has always proved a great factor in making the dais co-operate with child welfare work.

A proper and fully worked out Maternity and Infant Welfare Scheme is often felt to be a costly and prohibitive problem but it is never realised that nothing is so expensive as bad health. A wise economist, considers what he will get in return for the outlay. One has only to reflect upon the cost of defective children in schools and the cost to a Nation for persons suffering from tuberculosis and other preventable diseases and then only it will be realized that money spent for keeping the public in a healthy state is money best invested for building up a healthy Nation. There is no surer national economy than wise expenditure on the maintenance and progress of health and education.

The work so far done in India and other places to diminish infant mortality and to improve the condition of child life has borne such good fruit that everyone concerned is fully justified in appealing with full confidence not only for the continuance of the work but for a considerable extension of it.

Everyone is most anxious that children should be born in good condition so as to ensure their happiness and enable them to be useful in their day and generation and for this nothing

can be of greater importance and benefit than a proper, sympathetic and co-ordinated movement for the welfare of the mothers and the children.

I cannot conclude my lecture better than by quoting the following appropriate lines from Longfellow :—

“What the leaves are to the forest
“With light and air for food,
“Ere their sweet and tender juices
“Have been hardened into wood,
“That to the world are children
“Through them it feels the glow,
“Of a brighter, sunnier climate
“Than reaches the trunks below”.

NEED FOR AN ENQUIRY INTO THE CAUSES OF
INFANT MORTALITY IN INDIA.

DR. M. I. BALFOUR.

What are the causes of infant mortality in India? A great variety of possible causes might be given—early marriage—lack of advice for mothers during pregnancy—lack of skilled attendance during labour—injury to the child by rough usage—injury to the mother with slow convalescence and poor nursing for the baby—ignorance of the mother regarding hygiene and care of babies—too little medical treatment for babies—bad sanitation—poor or vitiated milk supply—venereal disease—bad housing—low wages.

The remedies for these causes are various. Should we try to organise better feeding and medical attention for the poorer pregnant women or should we concentrate on giving them good attendance at labour? Should we send Health Visitors into the home to teach hygiene on the spot or should we try to collect the mothers in special clinics where medical attention can be given? Should we open milk kitchens and centres for social hygiene or should we work for better housing and higher wages?

Do all these causes contribute to the high infant mortality and even if they do are some more important than others? We have no answer which would be accepted as proved by any scientific society.

It appears at present charitable organisations are working in all the directions indicated above, sometimes varying their activities from one to the other, but without any foundation of knowledge to go on except a knowledge of what is being done in other countries such as England where climate, conditions of living and education are totally different.

In India we are short of money for infant welfare activities and we are short of workers. If we wish to produce an effect on the huge population of India our work must be enormously extended. Ought we not to conserve our energies by finding out which are the most urgent paths of progress?

We are handicapped by getting very little information from the Public Health Departments, not through any fault of these departments but because they are understaffed, overworked and are dealing with an illiterate people who are comparatively seldom attended by medical practitioners in illness.

In the last report of the Director for Public Health in the Bombay Presidency it was stated that in the villages large numbers of babies under one month died of convulsions. One of the Assistant Directors concluded that the cause was tetanus

neonatorum and drew up a scheme for sending sterile cord cutting outfits into the villages to be supplied to the dais who would also receive a few weeks training at the Poona hospitals. The necessary funds were found by an infant welfare organisation. I do not know how the scheme has worked but those of us who are doctors know that convulsions in new born babies may be caused otherwise than by tetanus. Would it not have been worth while to appoint a doctor for a short time to watch the suspected cases and take material from the cord for pathological examination? In this way a diagnosis could have been made which would have been of incalculable value to other provinces where infantile tetanus is suspected. As it is, the scheme bristles with difficulties and its success or failure will throw no light on the important question 'is infantile tetanus a common source of infantile mortality or not?'

From observations I made last winter during a period of 3 months, I learned that nearly 50% of maternal deaths in 4,000 cases of childbirth were due to diseases such as the pernicious anaemia of pregnancy, or eclampsia. Hitherto for the improvement of the conditions of childbirth we have confined ourselves to the training of midwives or dais and opening of maternity homes, but these measures it is evident will only help to reduce a part of the mortality.

So far as I know no general enquiry has ever been made on the causes of infant mortality. If it were it would no doubt throw much light on the subject and lead to the better employment of the funds and material at our disposal. Much investigation as to the causes of infant mortality in England and diseases of infancy and childhood has been carried out by the Central Research Council (financed by the British Government) also by the women officers of the Ministry of Health.

Speaking as an onlooker I think that much time and money devoted to infant welfare work in India are wasted on matters that are immaterial and this gives us less time and money to spend on things that really do matter and which would lead to reduction of infant mortality.

My advice is that this Conference should appoint a Committee to draw up a scheme for an enquiry on the causes of infant mortality in India.

IS THERE NEED FOR AN ENQUIRY INTO THE
CAUSES OF INFANT MORTALITY?

DR. N. L. RANADE, POONA.

Even to a casual observer, who does not take the trouble to go into the details of cold statistical information but relies upon his general observation and knowledge, it becomes clear, that Infant Mortality in India—the number of infants that die under one year of age per thousand infants born, is appallingly high. One hears almost every day of a dead child in this house or that. In a town like Poona, in Bombay Presidency, with a population of 1,33,227, the registered number of deaths among infants during the last three years, is 1,800 to 2,000 per year, which means, that about five or six babies are wiped off every day. The statistical reports give us information which goes to show, that about five thousand babies die every day in India. The horror of this information ought to compel every body, at least from an humanitarian point of view, to investigate the shameful sacrifice that is every day going on. The information ought to rouse public opinion to action. Statistical tables regarding Infant Mortality, though very valuable and important in themselves, give us only an index of conditions as a whole, but do not afford specific information upon the subject. It is unnecessary here to raise the question of absolute reliability of the available statistical information. The question of reliability of these figures, is often raised, because registration of births is found to be very deficient in many places in India. We propose only to use the general trend of available figures to “Point a moral and adorn a tale”. In Europe, where Infant Mortality has not been so high as that in India, the pioneer workers were actuated in their efforts to reduce the mortality among infants, as much by philanthropic motives as by an appreciation of the need of the work itself. They were soon impressed by the fact that Infant Mortality was only a starting point, which led them into different problems of a complex nature. Their work naturally soon got involved in the activities dealing with questions that press most hardly upon the lives of mothers and children. The death rate is necessarily required to be interpreted in the light of its causes. Then only, it becomes a true guide to the discovery of conditions, that generally lie at the root of it. Those workers, therefore, soon realized that the activities which they had to undertake were in many ways distinct from what should be regarded as work for the prevention of mortality.

The death rate compels us to search for causes, which in their turn will throw light upon the question. Causes of deaths are understood as various diseases that bring about the fatal

issue. It is out of place here to enumerate a complete list of various causes or in other words, the many diseases that terminate fatally among children. If, however, by probing these causes some more important information which affects vitally the mother and the child, could be obtained, the need for such an enquiry is strongly established.

A consideration of one or two diseases which are predominant causes of deaths among children, will substantiate the above statement.

Diarrhoea—is a disease which contributes very largely to the death roll. In the treatment of this disease among children, medical men have often found that their remedies fail to avert the fatal issue. Drugs do not bring about the desired result, and in a few cases, if the child does not actually die, it is only just saved from death. Why this should be so, is not difficult to understand, if all the conditions in the life of a child are known. In these cases, diarrhoea in fact, happens to be the last stroke out of the many which the child was receiving. A consideration of the conditions in which a child under one year is generally found, will be very instructive in this connection. "The child for the first five years of life is an organism so tender, so easily broken, so easily damaged, that it needs all the care that first class intelligence can give it." In place of this first class intelligence what do we find? The child in nine cases out of ten is in the habit of receiving opium regularly twice or thrice a day in the form of small pills. Why the child gets it, one does not satisfactorily understand. Some children get it because it is a long standing custom in the family. In others it is to quieten the child so that its mother may be enabled to work at her household duties or for her bread. Where these arguments are not necessary owing to better financial conditions of the family, the child still gets the stuff because the mother is advised by her friends and relatives that it can only thrive, if opium is administered regularly. Any way, the mother never for a moment imagines that she is doing the slightest wrong and that any correction on her part in the matter is required. If one were to enquire further and wished to know the number of feeds the infant receives during twenty-four hours, he only reveals to the amazement of the mother, his own ignorance about a simple matter like that. Of course he ought to have known, that whenever a child cries it is invariably due to hunger and hence he must be fed. In the opinion of the mother, hunger and thirst have the same remedy in the case of a child. Milk satisfies both. Water is not administered to a child even in the most hot weather, because it is considered not only as unnecessary, but harmful. There is one satisfactory feature and it is, that there is no unwillingness on the part of an Indian mother to feed the child

with her milk. Almost all children in India are breast fed. But the mother! A poorly nourished, ill-developed, child-mother is in most cases to be depended upon for the nourishment of the baby. The child, therefore, from the first month of its existence or even earlier, begins to receive either cow's or buffalo's milk in addition to breast-feeding. In the eyes of the mother all milk is alike, so far as the feeding of the child is concerned. Any modification in it is never thought of as necessary. The process of feeding is extremely faulty. The quantity of milk is regulated by mother's imagination and cleanliness has no place in the process. The vessels in which the milk is kept are so shaped that thorough cleaning from inside is impossible (A 'Zari' which has the shape of a very small tea-kettle and which is so popularly used, is a good example). The vessel may or may not be covered. Flies, that are abundant roundabout owing to surrounding insanitary conditions, are seen feeding over the milk and if one of them falls into it, as it usually does in hot days, it is picked up by the fingers and thrown away. In a well-to-do family a feeding bottle now-a-days takes the place of this vessel. But the nipple and the bottle receive only casual attention in cleanliness. In between the feeds and even during sleep the infant has an indiarubber teat in its mouth, which it is continuously sucking. If the teat falls down either on the ground or in bed, it is again inserted into mouth by a simple process of picking it up and putting it in again. A number of such small details can be elicited from the mother after a minute enquiry and keen observation of the daily life of an infant.

Now a child who is under the influence of all or some of the above-mentioned factors cannot be expected to give better results under medical treatment than what are actually got. The above information is likely to be supposed as an exaggeration of facts. But it is not so. In the majority of cases the information given is substantially correct. In the life of a child many positively harmful events are happening. The child as a result is being devitalised every day, nay, every hour of the day. Such a child when it is attacked by diarrhoea or in fact by any other disease, is least suited to meet the attack. Brought up under conditions mentioned above, the futility of medical treatment is not surprising. The work evidently lies in other directions. The child has to be deprived of its opium habit, its feeding has to be regulated and modified according to scientific knowledge, its various injurious habits have to be done away with, in fact, the child has got to be brought up in the *right way* if the danger of the so called causes of death are to be minimised to the utmost. Even this will not be enough. The mother, too, nay even the father, has got to lead their life in the *right way* if the progeny is required to be healthy and long lived. The

right way however is neither so easy to know nor to follow. The prevalence of child marriage and consequent early motherhood, the 'parda' system in some parts of India and such other evil social customs, become very great devitalising factors in the life of a mother. In most mothers, pregnancies occur at such short intervals, that there is no sufficient time available for recouping health after the strain of the last labour. Less said about the management of labour and pre-natal condition, the better. Poverty is also a most important factor which brings in a train of other harmful practices. Overcrowding, poor nourishment, over-work, worries and anxieties are all an outcome of it. Sanitation is very faulty in almost all towns and villages. Ignorance and prejudice however play a great part in it. Illiteracy that prevails all over India, deprives one of a powerful weapon for removing ignorance.

A thorough enquiry into the causes of Infant Mortality, be it diarrhoea or pneumonia, measles and small-pox or tubercle, congenital debility or premature birth, brings us face to face with many questions that involve themselves into social, economic, climatic and other conditions of life, mention of which is made above. Efforts to reduce Infant Mortality will meet with appreciable success only when medical aid is assisted by efforts of social workers to improve the conditions that influence the life of a child and mother. A great reduction in the death rate due to Diarrhoea is known to have occurred only by an establishment of milk depots and infant consultations. The depot was serviceable in procuring correct and clean milk, the consultation stopped many wrong ideas and notions of mothers, in the feeding of their children. What is true in this cause of death is also true in the case of other causes. Each of the causes, therefore when inquired into, will elicit information regarding matters which require to be hit correctly. These matters may not be the same in each town or in every community. They differ according to the degree of education, the social and economic conditions, prejudices, etc. etc. The underlying truth however is clear and it is that the causes of Infant Mortality do not merely mean so many fatal diseases. The diseases are only the so called 'immediate' causes. There are various other conditions and influences remotely working at the root of them. They are not noticed till a search is made for them. They therefore need an enquiry wherein the *Right Way* can be found.

IS THERE NEED FOR AN ENQUIRY INTO THE
CAUSES OF INFANT MORTALITY?

RAO BAHADUR P. V. SHIKHARE, L.M. & S., F.C.P.S.,
B.M.S., THANA.

Such a query in a country like India must provoke an answer in the affirmative, and in trying to frame the same the following issues will have to be considered. viz :—

- (i) Is the Infant Mortality in India high—at least appreciably higher than in most of the civilized countries in the world?
- (ii) If it is high, what are the chief causes of this high mortality of infants?
- (iii) Are these causes preventable? Can the present state of things be improved?
- (iv) If so, what measures should be adopted?

(I).—This issue can very easily be answered in the affirmative and proved with definite facts and figures. Here the word infant is meant to include children under twelve months of age. That a large proportion of the children born fell a victim to death before they became a year old, was a fact of common knowledge and personal experience, but no definite figures were available till recently when this question of infant mortality in India attracted the attention of individuals and institutions working in the field of maternity care and child welfare, and now-a-days one finds special attention and care bestowed in Government reports on Public Health, and of other public bodies in working out these figures. Thus in going over the figures for the year 1923—the latest available for British India—one finds that during this year, the *Total Births registered* were 8,466,085 giving an average birth rate of 35·036 per mille and *Total Deaths* were 6,036,931, giving an average death rate of 25 per mille, thus showing a distinct tendency to increase in the population—the urban death rate being 29·24 and the rural death rate being 24·59.

Coming to the mortality amongst infants, one finds that 1,486,277 or 24·6 per cent of the total deaths occurred during the first year of life. This gives 176 as infantile death rate per thousand of recorded births for the whole of India, including both rural and urban populations. But looking to the state of things that prevails in some of our larger cities

one finds this figure far exceeded. Thus, the infantile mortality calculated over 1,000 recorded births was for

Poona	592	} per 1,000 births regis- tered.
Cawnpore	...	...	495
Surat	...	...	386
Rangoon	...	...	342
Shikarpur	...	...	338
Puri	...	...	335
Ahmedabad	}	...	298	
Benares		...	295	
Calcutta	...	...	280
Allahabad	...	...	269
Bombay	...	...	254
Madras	...	...	238
Lahore	...	...	218
Karachi	...	...	218

If we try to follow up some of the details, we find that: very nearly 50 per cent of these infant deaths occurred under one month.

and again, 65 per cent of the deaths under one month occurred during the first week of life, which come to about 33 per cent of total infant deaths.

Before leaving these figures, we might, with benefit, refer to one or two more points, *viz.*, the number of still births recorded as such, and the maternal death rate, *i.e.*, death rate of women occurring within 14 days from childbirth. Figures of still-births cannot be very reliable because it is difficult to get a proper record. But looking to the recorded figures, one finds that from 2 to 5 per cent of live births are still births.

Lastly maternal death rate varies in different provinces between 5 and 30 per thousand. It is 5.5 for rural areas and 12 per thousand for "all towns."

Let us compare these figures with those available from some of the western countries and towns. Thus :

London	has an infant mortality of 60 per thousand.
England and Wales	" " 80 " "
New York	" " 74.8 " "
Liverpool	" " 107 " "
Dunedin (New Zealand)	" " 35 " "

We do not find anywhere in these places figures of infant mortality even approaching those obtainable in India. In India, both in rural as well as urban areas, the mortality of infants may on an average be put down at 200 to 250 per mille, *i.e.*, one child out of every 4 or 5 born falls a victim before it has lived beyond 12 months. This is certainly an abnormal state of things which requires to be remedied, if possible.

(II).—Having tried to answer this first issue in the affirmative, we address ourselves to the second, *viz.*, “What are the chief causes of this high mortality of Infants?” In dealing with them, we might divide them into two classes, *viz.*, (a) general and (b) specific.

Under (a) may be mentioned :—

1. Want of education.
2. Poverty.
3. Early marriage.
4. Hereditary customs and practices.

Under (b) will come :—

1. Poor physique of the mother.
2. Absence of ante-natal care.
3. Want of trained and adequate help at the time of delivery.
4. Faulty post-natal care, including bad hygiene and bad feeding of the infant and of the mother.
5. Inherited causes such as syphilis, alcoholism, etc.

All these causes contribute to a high rate of infant mortality prevailing in India and are well-known and universally accepted : it would not therefore be necessary to dwell on them at length.

Want of suitable education for the women, such as will help every married girl and woman to possess an adequate knowledge of the responsibilities of the maternal condition is a very fruitful source of evil. What little information they used to get from old dames and grandmothers, however faulty, stood for something during the older generations. But this source is fast getting dry, the grandmothers themselves having with them very little to give, and a girl in her teens has to face the situation without having any idea of the responsibilities to be faced and is thus poorly equipped to meet the situation. It is very necessary therefore that parents should consider it their duty to give the required information to married girls of the family, which will give them some idea of the maternal state and the sacred task of nursing and rearing the children. Similarly a few lessons on physiology of the sex and the maternal condition ought to find a place in the curriculum of studies for the High School and the College for women. Suitable books written in the vernacular along the lines of Dr. Marie Stopes' latest production “The human body and its functions” and “Sex and the Young” would be very useful. And even the spread of ordinary education and culture amongst women of the middle and lower classes will help towards the same end.

(2) Poverty is very often cited as an important causative agent for every human ill and no doubt, to some extent it is one of the factors that have to be considered. But poverty may be said to be consistent with the appearance of man on this globe and it is to be seen to a greater or less extent in every country and in every clime. But it is within the reach of man to try and overcome the evil results of poverty by his skill and knowledge. And we often find instances of families with very limited means leading happy and contented lives. A man in affluent circumstances but without proper education and culture may often be seen to come to grief sheerly on account of his ignorance and all his riches is helpless to make him happy. Whereas, a poor man, if in possession of the right kind of knowledge and education will be able to curtail his physical wants and make his life happy. It is, therefore, the absence of the right kind of knowledge that makes all the difference and not so much the poverty. However, the latter must be cited as one of the causes tending to a high infantile mortality prevailing in India.

(3) Early marriage: the custom prevailing almost throughout this country of early marriages is a very important contributory factor of high infant mortality. It is a sign of good augury that the age at which young girls are married is gradually being advanced especially amongst the educated people, but the bulk of the population still remains unaffected and it is a common sight, especially in country towns and villages, to see children of 8 or 10 being married. That this practice is highly unsound socially, physically and physiologically goes without saying. Children born of parents who are constitutionally immature cannot have much vitality in them and their physical frames are also raw and rickety. Add to this the mental and moral incapacity of the child-mother to understand her responsibility at that tender age and one is forced to say that it is no wonder that the infant mortality in India stands so high. Rapid reform in this direction is very necessary and it can only be brought about by the spread of education and by a steady pressure towards social reform and enlightened common sense.

(4) Amongst hereditary customs and practices might be mentioned enforced widowhood amongst certain classes and sects of the people which conduces towards illegitimacy and consequent tendency towards neglect of the newly-born: certain other practices based upon deep rooted hereditary beliefs, which are observed in the management of labour and of the parturient, conditions such as the prejudice against light and fresh air, which lowers the vitality of the mother and the infant alike, will also come under the same heading. There is, however, another group of causes which directly affect the mortality amongst infants and we shall now briefly refer to them.

(1) Indian women generally have an inferior physique as compared to women in the West. This might be the result of the climate, or of bad food, especially food deficient in vitamins, or faulty hygienic conditions. These conditions bring about a rickety constitution at an early age or tend to produce osteomalacia at a later period. Both these deficiency diseases induce structural changes in the bony skeleton and especially in the pelvic bones, which not only affect the nutrition of the infant but also operate directly upon the mechanism of labour and thus account for a certain proportion of deaths of infants either during or immediately after labour.

(2) Ante-natal care of the infant through its mother is of traditional origin in India, and all the old works on Indian medicine such as Charaka and Vagbhat deal with this subject giving special attention to it. But the traditions are fast dying out and there are no enlightened methods yet introduced into the community to take their place and so absence of proper ante-natal care stands as an important cause of infant mortality. A good deal of care and serious attention during pregnancy is necessary, because the girl-mothers, as already pointed out before, are very poorly equipped—physically mentally and morally—to bear the burden of motherhood. No wonder then if serious mistakes affecting the health of the baby to be born are committed through ignorance. Thus the process of building the body of the foetus while in the womb, is seriously affected and a faulty constitution of the baby when born, is the result. Too much stress cannot therefore be laid upon the importance of ante-natal care which is necessary for the well being of the mother as well as of the baby.

(3) Absence of trained and adequate help for women at the time of child birth is also a very important cause of high infant mortality and forms a subject to be dealt with by itself. The ignorant dai in spite of a few good things that might be said about her, is a fruitful source of mischief both to the child and also to the mother. Her crass ignorance, her aggressive methods, her dirty habits and above all her traditional influence in all ranks of society are too well known to be mentioned. She is, however, an indispensable factor in society and any reform that has to be introduced must begin by reforming her and gradually replacing her with properly trained midwives. The dai cannot be ousted at once. A fairly large percentage of deaths of infants are directly attributable to her meddlesomeness, and another proportion to the injury or disease that she implants upon the mother, thus she figures very largely while enumerating the causes of high infant mortality in India.

Along with this must also be mentioned the absence of provision of maternity homes and maternity hospitals accessible

to all classes of the community. It is only during the last decade or two that we see maternity homes springing up here and there specially in the cities and a few of the larger towns, but their number is totally inadequate. Not only every district town but even the taluq towns must provide maternity homes with suitable help available for the poor and middle classes.

(4) Lastly we come to the post-natal group of causes operating upon the infant and under this heading, faulty feeding of the infant will take the first rank. Mother's milk, which is generally the best food for infants, may either be insufficient or poor in quality or may not be available at all and then the next best or perhaps the 10th best substitute has to take its place. But after all they are substitutes and cannot very well take rank with the original and the poor infant has to fight its almost first battle in life with, or in spite of, these substitutes. The delicate digestive organs of the infant, not being used to these foreign invasions upon its stomach, often succumbs under the strain, and the body generally, not getting the required vital energy for its maintenance and growth, gradually withers away and is hurried to the grave much before it has had a chance to live. The final onslaught is generally in the form of an infection, an exposure, an exanthem or an acute indigestion, but it is only as the last straw that breaks the camel's back.

Thus want of post-natal care including dietetic errors, exposure to cold and insanitary conditions and bad hygiene, is an important factor in bringing about a high deathrate amongst infants.

(5) In the last group are included causes which operate through either parent upon the infant, and the first and foremost amongst these may be mentioned, Syphilis. This dreadful disease in either parent is responsible in the majority of cases for the large number of still births and also for deaths of infants during the first year by lowering the vitality of the infants and inducing a condition like that of marasmus. Alcoholism on the part of either parent might also tend to lower the vitality of the infant and thus help to increase the mortality. Other constitutional diseases such as tubercle might also come under the same heading but they do not necessarily operate at an early period of life.

(III).—Having now taken a general survey of the causes of infant mortality in India, we address ourselves to the issue that comes next—are these causes preventable and this query will have to be answered in the affirmative in the light of the present day methods of preventive medicine and the actual results gained by their application, in several countries. With the general spread of education and knowledge of the methods

of prevention and their adoption it has been possible to bring down the rate of infantile mortality by 50 per cent or even more in many civilized countries. Why should not India profit by their experience and adopt these methods of prevention? To quote the well known instance of London, the infant mortality rate per thousand which stood somewhere near 150 about 20 years back has now come down to between 60 and 70. New Zealand has gone still further in this direction as the town Dunedin has been able to bring down the figure of its infant mortality from 90 to about 35 per thousand during the last 10 or 15 years, by the adoption of the same methods of prevention. If one were to collect such figures from other countries in the west he would meet with similar results. But it is not necessary to multiply figures. It can therefore be easily laid down that what has been possible to do in other countries would also be possible for India to do, if India would only awaken from her slumbers and be alive to the realities of the situation. Of course, looking to the vast extent of the land, its time-honored customs and usages, the conservative habits of the people in general and their backwardness in education, it would take a longer time for her to reach the level attained by other civilized countries but the results are assured if suitable means were adopted.

(IV).—A consideration of this issue in detail does not come under the title of this paper and I would therefore conclude by simply enumerating the methods to be adopted—

- (a) Spread of education—both general and specific, especially amongst women.
- (b) Training of suitable Indian women as public health nurses.
- (c) Establishment of infant welfare centres, and starting of infant welfare associations in different places.
- (d) Appointment of trained nurses for district work.
- (e) Training of women as midwives on a much larger scale.
- (f) Improvement of the indigenous Dai by impressing upon her the ideas of cleanliness and non-interference.
- (g) Starting of maternity hospitals and maternity homes on a much larger scale.
- (h) Providing dairies under proper supervision for the supply of pure milk free from adulteration and deterioration.
- (i) Linking up work of infant welfare centres with that for temperance and for promotion of social hygiene.

Such and few others must be the lines along which steady and persistent efforts must be made for saving the lives of hundreds and thousands of infants who are hurried to the grave from year to year without getting a chance to live.

THE PLACE OF STATISTICS IN INFANT WELFARE WORK.

MR. K. G. VENKATESWARAN, M.A., L.T., KHANDWA, C. P.

1. Are statistics necessary to Infant Welfare workers?

All infant welfare work is designed to promote the physical welfare of infants. Obviously it is by the removal, as far as it may be possible, of those social, sanitary and economic conditions known to exert a deleterious influence on infant life that such work can be accomplished. Only when we know what these conditions are can they be effectively controlled or removed. Our first task then is to ascertain these conditions. This may be done either by securing information relating to the frequency and causes of sickness among infants or by taking stock of deaths occurring among them and tracing each to its cause. Though the former method is more scientific, ordinarily, the latter is the one that is generally employed. Specifically it is necessary for us to ascertain the extent of infant mortality in the country and its distribution, from what causes infants die most and among whom, how far these causes are preventable and how they may be prevented, whether the activities of those engaged in infant welfare work are bearing fruit or not and finally how, if necessary, these activities require to be modified for securing better results.

We may depend on mere general impressions or on the results of a systematic statistical study of the problem of infant mortality for obtaining answers to the above questions. General impressions formed by casual observations would very well suffice if the problem under investigation were simple and the causation obvious, but where the causes cannot be readily perceived it would be unwise not to call in the aid of statistics. A high rate of infant mortality is the result of various factors, some obvious and striking, others obscure and unobserved. In a vast majority of cases, the superficial, the concrete and the immediately apparent factor alone will be noticed and these may be the least important. Even if all the factors are noticed, it is hardly possible to form any correct impression of their relative importance by a casual observation. Consequently, schemes formulated on the basis of such impressions are apt to overemphasise one set of factors to the neglect of others. They may at best "deal with the baby when the baby comes their way", and no more. As reliable answers cannot be obtained by depending on mere general impressions, a statistical study of the problem is essential.

The usefulness of statistics and the statistical method in social enquiries is now so well recognised that no defence

should be necessary for demanding that statistics relating to problems of infant mortality ought to be accurately maintained and the statistical method more widely employed than now for a true understanding of these problems. There are, however, enthusiastic and warm hearted social workers who feel shy of statistics and dismiss all statistical approach to the diagnosis of our problems as tiresome and unnecessary.

In what follows some facts are given to indicate how essential it is to make intensive statistical investigations as a basis for developing infant welfare work in each specific locality. The facts given below are based upon the results of a study I have done of the statistical data contained in the various official Public Health reports of our Country. These data are admittedly inadequate and imperfect in various respects but even when all allowance is made for their imperfection the lesson they convey is clear and striking.

2. Evidence to indicate that local peculiarities require to be taken greater note of in expanding infant welfare work hereafter.

Ignorance, superstition, unskilled midwifery, general uncleanness, administration of opium to infants, intemperance and venereal diseases in parents are usually given the first place in explanation of the high death rate among infants in this country. The same set of causes are held as responsible for deaths among infants in different parts of the country and the same set of remedial measures are applied everywhere. No one can dispute that the factors mentioned above operate to some extent all over the country, and to the extent these operate, infant welfare work as is now carried on, is bound to yield us some results. We must be critical, however, of those who are content with such general statements as a guide for intensive infant welfare work in each locality. Local conditions vary far more than we are at first inclined to believe as the facts given below show. Though the statistics on which the following facts are based cannot be accepted at their face value they are nevertheless certainly of value as indicative of great local variations.

The provinces differ considerably in the extent of infant mortality. Arranged according to the average annual infant mortality rate per thousand registered births for the decade from 1911 to 1920, we find that the range of variation between the highest and the least is from 273 to 181, Central Provinces and Berar recording the highest and North West Frontier Province recording the least.

A study of the annual rates for each province from 1911 to 1922 shows that the rates fluctuate considerably from

year to year. One feature about the fluctuations is that they do not rise and fall together; sometimes they do not move in the same direction in all the provinces. The range of variation in many provinces between the highest and the lowest rates recorded during the decade is easily over 100.

From the point of view of distribution of infant mortality according to sex, the provinces again show considerable difference. Taking the experience of three years in the aggregate (1920, 1921 and 1922) it is seen that the difference between male and female infant mortality rates is least in the Punjab and North West Frontier Province.

Remarkable differences are seen between the experience of different provinces in respect of the incidence of infant mortality according to age periods. Comparing the rate for the first month with the rate for the next eleven months for the year 1922 it is seen that Bihar and Orissa, Coorg, Assam and United Provinces record lower rates during the first month; Central Provinces almost equal rates and other provinces higher rates.

Much reliance cannot be placed on the figures relating to still births and maternal mortality but the figures available indicate that Central Provinces and Berar record a higher percentage of still births to live births and maternal mortality than every other province.

An analysis of infant mortality according to 'rural' and 'urban' areas, on the basis of the classification followed in Public Health Reports, shows that with the exception of Bombay and the United Provinces there is little difference between the infant mortality rates of rural and urban areas taken in the aggregate. The higher urban rate in the two provinces referred to is, perhaps, accounted for by the fact that in both provinces there are far more cities with a population of a lakh and over than in other provinces. There are eight such cities in Bombay Presidency and six in the United Provinces. If these be excluded this great difference between the rural and urban infant mortality rates in these provinces also is likely to become far less marked.

Extreme variations are observed in the infant mortality rate of contiguous districts and even between neighbouring towns in the same district. The fact that these variations occur even between areas in close proximity suggest that the conditions responsible for them are not to be found in geographical position or in climatic differences but in other factors. Part of these variations may be due to varying efficiency in the registration of births and deaths but it would be totally wrong to regard them as due to this cause alone.

Conclusion: a plea for special intensive investigations.

The extreme variations in the total infant mortality rates as between different provinces within the country, the difference in their distribution according to sex and different age periods of infancy, the differences also as between contiguous districts and neighbouring towns strongly suggest that there are great differences in the causation of infant mortality as between different places. The factors responsible for these variations will have to be taken into account in planning schemes of infant welfare for each locality. It is by ascertaining the circumstances which help to explain these variations, the influences which keep down the infant mortality in some localities and the factors which favour a high infant mortality in others, that useful work can be accomplished. Improvement will be possible to be effected by adopting one set of remedial measures in one district, while in another, importance will have to be attached to measures altogether different.

Intensive investigations in specific localities should be undertaken and the causes more definitely ascertained before infant welfare work is further developed. Such investigations should be carried out in each city and in a few selected villages in each district. The work should be undertaken under able guidance by Municipalities and District Boards.

VOLUNTARY WORKERS IN CHILD WELFARE WORK.

BY MARGARET E. COUSINS, B. MUS, MADRAS.

Child Welfare work is essentially woman's work. We women look to men as co-workers in this great movement chiefly as trustees of public funds which have been gathered for the welfare of men, women and children alike, and we rely on them to act as channels, through whom those funds will in just proportion be directed to the work connected with the welfare of the women and children for whom we women are, or should be, directly responsible in the details of the organised, practical, daily working of the Child Welfare Schemes. We thank the men Doctors who have done so much for the work in its initial stages, and Members of Local Councils who have taken an intimate interest in the preliminary work of starting Centres. But the work remains predominantly the duty of women to control and carry through. Let us review the groupings into which women naturally fall.

There are the women and children of the poorer classes who are ignorant, and to whose wants and diseases some in better circumstances must minister till social economic conditions improve and education is universal in India. There is that noble group of trained medical women and nurses who have done splendid pioneering work in this country, and whose number is rapidly increasing. These are professional, paid workers. Between these groups are the great masses of women who have comfortable means, plenty of intelligence, a limited amount of time to spare, but of whom, alas, the large majority has had no education even in the mother-tongue, as is shown by experience and by the statistics which state that only two per cent of India's womanhood is literate. Of this group there is the valuable minority who have had education of varying degrees, and there is the growing body of elder students in Colleges who need practical training in social service work as part of their Course in Civics. Without the fusion into the Child Welfare work of these last two groups the Schemes will lack the humanising atmosphere which comes from work done voluntarily without any money motive, and the women's movement towards free service of their country will lack a right and appropriate channel for its self-expression. Therefore we have to study how we can interest voluntary women workers in the Baby Centre Schemes.

We have to remember that it is quite a new thing for Indian women to come out of their homes to serve the public, and particularly to share in work which may take them into contact with what they consider the ceremonial pollution of the

outcaste. The first thing therefore to do is to find ways to get women out of the convention of seclusion. We have to foster the formation of Women's Associations in every town. A number of women will be separated from their families by the official duties which have demanded the transference of the husband to distant places. The wife must follow the husband and in her loneliness she and her ilk form the nucleus of the Women's Societies which are so happily springing up everywhere. These Associations may be formed for recreation, for the teaching of handwork, for practising conversational English, or for weekly or monthly readings or lectures. But when they have continued for some time there arises quite naturally in the members the desire to do some social service for the helping of others. Then is the time to secure a group of voluntary workers to start and superintend the desired Baby Welcome, to collect funds for it, and to build up a more honourable status in public opinion for the trained Nurse and the whole Nursing profession.

Through such means the Women's Indian Association has been able to supply voluntary visiting superintendents to four different Baby Welcomes in Madras City, a different lady for each day of the week, thus there are twenty-four ladies of different castes and creeds responsibly involved and interested in the success of the Centres. And this is being repeated in many country towns.

It is quite a mistake to leave the Centre in the care of only the Municipal Doctor, the qualified Nurse and one lady superintendent. It becomes too cut and dried under that system, too much a matter of pay and patronage. If there are plenty of little children up to eight years of age coming daily to a Centre for bathing and simple medical aid as the fundamental work of the Centre, there will be enough work to keep the Visiting Superintendent busy and happy for the whole period each morning. If there are a hundred children, and there can easily be that in each Centre, the daily visitor will take down the name and age of each, in a rough register, see that the child is bathed properly and medically tended with loving care, become friendly with the mothers and be a helpful and sustaining influence all round. It is no use asking ladies to be interested unless they have definite duties to perform which will take up their full time and which will make them feel that their presence is really needed. A Feeding Centre with only about 30 children for milk or Glaxo is only half the work that could be done in the localities of the underfed babies. Daily bathing will prevent disease and raises the whole tone of a locality. Through the bathing there can be the large numbers and the work for the visitor. The Nurse will later in the day transfer the rough entries into the permanent registers,

There is also healthy competition between the daily visitors as to who gains the highest attendance.

It is for this work that College students also prove very valuable. They can take their turns every Saturday, when there is a holiday from lectures and classes. It will be well to make such training in Child Welfare organisation a compulsory part of training in Civics or Domestic Science in every girls' College and High School Sixth Form. Not only will the centre teach them organisation, but give them a working knowledge of the use of simple medicines, instill into them the use of the weighing machine, the necessity for correctly measuring the food of babies, and accustom them to the idea of public service at the impressionable period of their life. Teachers also should be persuaded to give their Saturday mornings to helping the Baby Welcome. This aspect of work will enrich their lives, and the heart will be exercised as well as the brain.

For the smooth working of this band of workers it is quite necessary that there should be one Lady-in-Charge of each Centre. The wife of one of the officials of the locality is the best for this purpose. In this is a field of valuable opportunity for comradeship between the Western and the Indian woman, and the undoubted power of the official's wife to get things done can be utilised in an inspiring and helpful directions. Especially is this the case as regards the finance of the Centre. The women of the official class can also be the magnet which attracts and holds together the women of different communities while the club consciousness is being developed in the women of a town. Later the young women love their Association for its own sake. It is from these organised women that help for the Child Welfare Schemes is coming in another way. There are now in South India alone over thirty women who are Members of Municipal Councils or Local Boards. The presence of the women in a Council makes it much easier to press the claims of Baby Welcomes for financial aid, for the help of the Municipal Doctor, for good sites, etc. It is a fact that almost every woman who has been nominated to these responsibilities is a member of the Women's Indian Association because it is from organised groups that the best results may be expected and the best workers be self-trained in altruistic ideas. Then Women's Associations such as Red Cross Branches and Mothers' Unions, will also be able to help by doing sewing for the poor children of the Centre and this in itself will increase their interest in the regular work of the Centre. It is not the theory of Child Welfare work that will attract women to work for a Centre but the feeling that there is a definite piece of help in their power without which the Centre will not be really well conducted.

The truly well organised Baby Welcome is one in which the woman voluntary worker not only helps the Centre but the Centre helps the worker. Is there any blessing more touching than the smile of the little child whom one has rescued from pain? Or the shy salaam of the poor woman in the street whose baby one has weighed and found not wanting? Or the gratitude of the Nurse to whom one opens a new world of social dignity and enjoyment? "Inasmuch as ye did it unto the least of one of these ye did it unto Me." The Child Welfare Centres are a school for hygiene for the children and a school for service for the adult who is the visiting superintendent or sewing helper or lady-in-charge. It offers training to all young and old, rich and poor, man and woman.

THE HEALTH VISITOR AND HER WORK

BY

G. K. DEVADHAR M.A., C.I.E., POONA.

Points for Inquiry.

The very title of this note suggests the following points for enquiry:—

- (a) How to obtain a greater number of suitable Indian Women for being trained as Health Visitors?
- (b) Are the present methods of training adequate and if not what should be the line of improvement? and
- (c) Should there be a uniformity of the standard of training for them; or whether a diversity thereof would be equally good.

2. Having regard to the increasing need for better provision for scientific medical relief both of a curative and preventive character in India to-day, it will be readily admitted that there is at the present moment a greater paucity of trained Indian women workers like Lady Doctors, Nurses, Midwives, Public Health Visitors, Lady Almoners, &c. Moreover, there are a great many difficulties in a country like India in the way of securing in an increasing measure an adequate supply of them for being trained for work in these various spheres.

3. In briefly attempting to show the causes of this shortage and to suggest methods to remove the difficulties gradually, I am taking into account my own experience of such work for over twenty years at various places and the observations made by me with regard to this problem practically all over India. The remedial measures which I am suggesting are the result of the experiences gathered by me in the solution of this problem with the help of my organization—the Poona Seva Sadan Society, coupled with its branches or centres of work now about a dozen in number.

Lack of Tradition.

4. It is a matter of common knowledge that the popularly accepted programme of work by women in India either in domestic or public sphere did not till recently contemplate any inclusion of such trained medical or nursing assistance on their part as would involve the need for service outside the pale of the "home" or attendance on males beyond the narrow circle of their nearest relations by way of nursing. This phenomenon may possibly be due to the fact that there did not exist in olden times during the last five hundred years in the country any

large well-organized institutions like modern Hospitals or Maternity or Nursing Homes intended to supply trained medical relief on any very large scale. Moreover, it must be clearly understood that service of human beings to whichever station in life they may belong, which is to be done by women irrespective of sex, is a comparatively modern idea in India. It is likely that orthodoxy or conservatism, which is not the monopoly of India alone, is not solely responsible for this paucity of women workers in this special field. The point that I want to emphasise is that there existed no tradition for such training and work in this land, and our first aim, therefore, should be to establish a noble tradition in this line. Each and every country must have experienced in a varying degree some difficulties in inducing a large number of better class women to take to the nursing or the medical profession, and it is only the advance of liberal views or progressive ideas that has helped in the gradual diminution of the prejudices that attended the development of this branch of social service. Further, it is only latterly that the importance of a trained nurse or a Health Visitor has come to be recognized as a necessary compliment to efficient medical assistance or treatment. There are many even to-day engaged in the medical profession who sincerely doubt the necessity, suitability, or advisability of women nurses and advocate the training of male nurses. Again, the achievement of the speedy recovery of a patient depends as much on a good medical treatment as on an efficient, clever, and gentle nursing at the hands of a trained woman and this fact is coming to be recognised in India very slowly. The modern demand for Health Visitors or trained nurses and midwives is the outcome of the growing knowledge of the laws of hygiene and sanitation which has set many an earnest mind a-thinking and created a new hygienic or sanitary conscience. The development of this thought has given rise to a spirit of enquiry and investigation in the direction of preventing human suffering, diseases, etc., to a considerable extent. This line of thought has created the need of a class of women workers now known as Health Visitors.

Modern Idea.

5. The question, therefore, which we have to tackle in this Conference and which in my opinion is a most difficult one, whatever the experience of other workers in different parts of the country be, is how to secure an increasing number of Indian women of suitable age and with sufficient preliminary mental equipment and how these could be induced for being trained as Health Visitors. Luckily, we have no Purdah system both in its physical and, I may even say, mental aspect in my part of the country: still we find it extremely difficult

to attract a sufficiently large number of intelligent women to take kindly to the nursing line. The idea of training women as Health Visitors is comparatively a modern one; and I would, therefore, not be much distressed or disappointed, if this difficulty continues for some time yet to be a source of anxiety. I am not certain if there is today among the educated men and women or ever among those who have received medical education sufficient and earnest consciousness or intelligent and active realization of the importance of the science of Preventive Medicine, and the best proof of this fact is that no big and well-organized effort has yet been made at starting a Public Health School in Bombay worthy of its traditions, though there are organizations that conduct actual work on a large scale in Bombay.

Poona Seva Sadan Public Health School.

6. As a result of the propaganda conducted in Bombay by my friend Sir Claude H. A. Hill, the Director-General of the League of Red Cross Societies, Paris, during his last visit to India, the Poona Seva Sadan Society, to which I have the honour to belong, made a humble beginning in this direction some three years ago by adding to its programme of promoting nursing and medical education among poor Indian women, a new activity of weekly lectures on Public Health and Public Health Nursing to the women that stay for nearly four years in its three medical hostels for their regular training as Nurses and Midwives of the Sassoon Hospitals, Poona, or in the case of women medical students for their regular studies for the Sub-Assistant Surgeon's course at the B. J. Medical School. Thus, a general grounding is secured in the principles of Public Health, and at the end of their Hospital course such of the nurses and midwives as are keen on Public Health training are provided by the Society regular instruction in Infant Welfare work at its Infant Welfare Centre and ante-natal clinics accompanied by district visiting or popularly known as "House-Visiting" or "Home-Visits" under the direction of a Health Visitor or Worker trained in England in her post-graduate course in Public Health Nursing at the Bedford College for Women in London with the help of a scholarship kindly secured from the League of Red Cross Societies for this lady of ours, a Lady Doctor and the Instructor of the Public Health School. This additional course, therefore, gives training in the practice of a Public Health Visitor; besides, there is a further systematic course of lectures, visits and demonstrations which she has to attend dealing with all the important aspects of Infant and Child Welfare and Maternity Care. But this is only by the way.

Provision of Facilities.

7. If we have to induce many women to take up such work we have to provide them through well-organized institutions with the necessary facilities for their preliminary education. I have seen that many well educated women do not readily come forth to embrace this activity either as a labour of love or as a means of livelihood. It is not so much the fear of public opinion that stands in their way. In many cases intelligent women are ready to offer themselves for ultimately receiving training in these lines provided means are found to remove the several difficulties in their way. These are lack of adequate preliminary training, and the maintenance of their dependents, especially the children. If of course educated women in large numbers begin to take interest in matters relating to Public Health and Sanitation, a few among them would be found who could be induced take a regular course in Public Health Nursing; in that case, then, there will be no difficulty with regard to this class.

Primary Basis of Success.

8. I would here emphasize the need for intelligent understanding on the part of workers in this field as the primary basis for ultimate success along this line. And I quote below an extract from a book styled "Maternal Mortality," Publication No. 158 of Children's Bureau under the U. S. Department of Labour:—

"The Fourth Annual Report of the Ministry of Health of Great Britain thus calls attention to the educational value of such health centres for mothers and infants:—
'It cannot be emphasized too strongly that the main object of the Centre is preventive and educational, and that its primary aim should, therefore, be to provide advice and teaching for the mothers together with the supervision of the healthy infant rather than treatment for the sick.'"

Moreover, in all schemes of propaganda of this nature carried on in other countries great insistence on the teaching of mothercraft and also fathercraft with the help of a large army of trained workers in this field is urged. And the most methodical work in this connection carried on in England by private and state agencies, and the results achieved and the vast amount of money spent, are worthy of notice, and should supply much food for reflection to Indian workers. Even much better record of work in this line stands to the credit of the little colony of New Zealand. America and other Western countries are now vigorously pushing on this propaganda and there are signs of awakening visible in India at least in the big

towns, though I am not yet certain if the popular sentiment is fully developed to recognise its value and the need for adequate sacrifice

Grades of Training.

9. There are many other matters connected with this problem that need detailed consideration; but I look upon them at this stage as of minor importance. Such matters as preliminary course of training, length and nature of a regular course of training for a Health Visitor, her age, the rules for conduct, pay, allowances, registration by means of law or standardisation of courses, etc., would form details of organisation and administration. These in my opinion would vary in different parts of our country according to local conditions. However, for the sake of securing a recognised standard of efficiency, I may advocate the establishment of a sufficiently stiff examination at some central place like Delhi or Bombay by a Joint Committee of representatives of the various Public Health School organisations and also representatives of the Government Department of Public Health. Such an examination should be the highest grade of training of a Public Health worker. As for workers of the lower grades, who would be needed in large numbers some simple scheme for their training and employment may be evolved along the lines recently adopted in the Central Provinces by the Red Cross Organisation. Methods must be found to train such workers in sufficiently large numbers as could be warranted by the material available for such training and the funds that could be confidently expected especially from the public for the administration of such services.

Appeal to Higher Sentiment.

10. Among the many means of getting over this primary difficulty, the one that is commonly resorted to is propaganda and demonstration to be carried on in all its practical and popular phases. In conducting this, among women reading at both schools and colleges, care must be taken not to lay so much stress on its business side or economic gains, as on the moral appeal it should make both to the patriotic sentiment and spiritual well-being. Such an advocacy of this beneficent cause is likely to appeal to the motherly hearts of Indian widows especially and women-folk generally. The recent Baby Week and Health propaganda, so systematically and vigorously carried on practically all over India, has already paved the path for intelligent reception of the modern methods of the science of Preventive Medicine, and secured an active response on the part of those that have a sympathetic heart and believe in this Mission as the goal of their life.

THE HEALTH VISITOR AND HER WORK.

MISS E. GRIFFIN, DELHI.

A.—How can a greater number of Indian women for training as Health Visitors be obtained?

The problem of obtaining the right kind of women to train as Health Visitors has been a source of worry to the heads of training schools for some time. Age is the first thing to consider, it is a mistake to have quite young girls as they are inexperienced in the bigger things of life and make no impression on the mothers they wish to teach. If they are elderly they are set in their own ideas and do not take kindly to modern methods and teaching. If training schools do not take young girls, the better educated ones are lost to us as they choose their careers on leaving school or college.

With a view to obtaining students addresses might be given to the girls in the upper classes of High Schools and Colleges, setting out the aims of the Child Welfare movement and the prospects of health visitors after training. A good deal could be explained to the girls about the need for health visitors and the difference it would make in national life if babies could be born healthy and brought up to be strong and capable citizens. The girls should be given the idea that healthy mothers produce healthy babes and the need for ante-natal care impressed on them. It is not sufficient to just save the lives of infants to allow them to grow up into sickly men and women, such are a burden on the community. The girls could be told of the harm done by untrained midwives and dais and the urgent need for training these women. Infant mortality and its causes could be put before them, it might also be pointed out that many of these causes are preventible. In this way girls of good family and education would realise the need for the work and probably many would take up health visiting as a career.

2. Arrangements could be made for girls in the upper classes of schools to visit Infant Welfare Centres where such exist. Here they can see the poorer children and find out for themselves the need for better conditions. In the Centre they can be shewn the actual work of a health visitor and demonstrations can be given on bathing babies, washing eyes, and doing simple dressings. The girls might be told the newer methods of infant feeding, shewn how to make bottles and keep them clean and instructed in the needs of the babies. They could attend sewing classes and get thoroughly interested in the work.

Thus, they would get a practical idea of the value of preventive work and even if they did not actually become health

visitors it could not fail to be of benefit to them. I know some heads of schools consider this a dangerous scheme, as they think the girls might come in contact with cases of infectious disease—but the danger is not so great as they imagine and if reasonable care is taken no harm will follow, but much gain.

3. Extensive advertising, especially in the Vernacular Press. Short articles dealing with health visitor's work and the necessity for such work would arouse interest and help to educate public opinion. It should be clearly stated in these articles what kind of women are needed and what qualifications they should possess, otherwise it will result in a great number of useless letters to the Secretary. The pay and prospects might be mentioned.

4. Leaflets on the same lines, but fuller, should be written and circulated to the heads of high schools and colleges, also to training colleges for teachers all over India. Such leaflets could also be sent to the matrons of hospitals, many nurses after completing their training could thus be induced to take up health visitors work.

5. Meetings of school teachers should be arranged and the aims and objects of health visitors' work explained to them. After some years of teaching many women are glad to change their occupation and an outdoor life appeals to them after the indoor school life. Teachers generally commence work young and after a few years are more experienced and of a better age to take up the midwifery training which is an essential preliminary to the health visitor's training. Such women have had experience in teaching and this is a useful asset in dealing with mothers who are but grown-up children. Ex-school teachers, we find from experience, make good health visitors; being older, they make a better impression on mothers and grannies who often make the work of a young health visitor very difficult.

6. Lectures might be given by doctors to men, the fathers, particularly Hindus, with a view to getting Hindu widows to take up this profession. These women would be most suitable and it would give them an object in life, also they would be popular with the people in general.

7. A few midwifery scholarships might be given to suitable women and the training taken in a hospital which has a fairly large outdoor practice. Some hospitals have nurses and dais who attend patients in their own homes. Such hospitals would be invaluable for teaching midwifery to prospective health visitors.

B.—The present methods of training—Are they adequate? In what respects is improvement required?

At present the methods of training are many and varied, therefore the first great need is uniformity. The syllabus and

period of training varies in different parts of India. In Delhi the time fixed is one year and that is not too long, if long enough. Indian girls at the end of the time are often found to have insufficient confidence in themselves to organise work in other places.

The next question is: Shall candidates be trained nurses or not?

In England the Ministry of Health has reorganised the examination for Public Health Workers. Memo 101 M.C.W. says in Paras. 2 and 3—"In place of the shortened courses specified in Articles 7 and 8 of the Regulations of 1919 it has been decided to approve for the payment of grant a whole-time course of training in Public Health work lasting for a minimum period of 6 months, and it will be observed from paragraphs 3 and 9 of the conditions of grant which are set out below, that grants will be payable *only* in respect of students admitted to these courses who are "*Trained Nurses*," as defined in para 1 of the conditions, and who have either obtained, or declared in writing their intention of obtaining, the certificate of the Central Midwives Board. It is recognised that 6 months is too short a period to enable a full training in health work to be given, but the course should suffice to enable a nurse to acquire a reasonable understanding of the theoretical and practical aspects of her future duties."

Para. 3. "For students who are not 'trained nurses' the Minister will, for the time being, be prepared to approve for the payment of grant those courses of training of 2 years' duration which have already been recognised by the Board of Education under Articles 5 and 6 of the Regulations of 1919, but as indicated in paras. 4 and 9 of the conditions of grant, grants will be payable *only* in respect of students who have obtained, or have declared in writing their intention to obtain, not less than 6 months training in a hospital, and also the certificate of the Central Midwives Board."

The authorities in England evidently consider that the best candidates are fully trained nurses and defines a trained nurse as. Para. 1, page 3, Memo. 101 M.C.W. "Trained Nurse" means a nurse who has completed a three years' course of training in a hospital which was during the period of her training, or has subsequently become, a training school approved by the General Nursing Council for England and Wales, or for Scotland, or the General Nursing Council, for Northern Ireland, for the purpose of admission to the Council's Register—under the provisions of Sec. (1) of The Nurses Registration Act 1919."

From this it would appear that a training as a nurse is a good foundation for a health visitor's work. During a nurse's training she is educated, among other things, in

observation, a most necessary part of a health visitor's training. In her work she has to depend more on what she sees around her than on what the mothers tell her. Some girls will go into a house and see nothing, others will see from what is on the shelves and under the bed exactly what the grannies have been giving to the baby or mother. To quote Miss Viney in 'National Health' on the trained nurse as health visitor.— "Great as is her value to the Department which employs her, the value of the nurse is yet greater to the public whom she serves. Adults come to her for advice on many subjects; mothers with their babies need her help and comfort; the school child demands her watchful attention; familiar with disease, she is quick to note the early signs of its appearance and to secure skilled care *in the preventable stages*. By her influence she inspires the parents to strive for health for their children and to co-operate with the doctor in the relief of early suffering, her training and experience enable her to teach with authority. As in her hospital days so in her life as a Public Health official, she comes in contact with all sorts and conditions of people and her training helps her in dealing with them."

Some people will say that a full training as a nurse is not necessary nor desirable, and that the health visitor should think and radiate health, and know little or nothing of disease. This is partly true but the health visitor must be able to detect the earliest signs of deviation from the normal and this is only possible when the observation is trained and the worker has acquired the habit of seeing all there is to be seen, and also when she knows by actual experience the signs and symptoms of disease. In India the three or four years of training are an additional advantage, as most hospitals take probationers young and by the time they have completed their training the girls are of a more suitable age to commence the midwifery and health training and they will have more influence with the mothers with whom they have to deal later.

In Delhi the Syllabus of training corresponds very nearly to that laid down by the Ministry of Health in England. In the English syllabus a section is devoted to School Medical inspection work. It would be beneficial to Indian students to hear something about medical inspection of schools and if possible to be present at an inspection, preferably in a girls' school. Vaccination is included in the Delhi course and this does seem of value. It does not appear to be included in the curricula of other provinces, it is of great use to workers in country districts and should be more generally taught.

The Health Schools in other provinces differ from Delhi in the length of the period of training, Lahore and Nagpur each being 6 months. This is too short unless the candidates

are trained nurses of marked intelligence. The syllabus is very good in both these schools but the time is too short for its absorption.

Improvement is needed in the length of training, more definite nursing training, some experience of school inspection and the health visitor's part in the after visiting of parents with a view to getting defects remedied. During the midwifery training it would be greatly beneficial if a certain number of the cases conducted could be done in the homes of the patients. We find that health visitor students who have done midwifery only in hospital wards are handicapped when they go into the actual homes of the people.

Students in training should pay visits to industrial concerns, such as mills, factories, iron and coal works where such exist, bakeries, dairies, and other places where men and women are employed. Buildings operations should be pointed out to them so that a general idea of the conditions under which the parents or fathers work may be obtained. The health visitor must be taught to realise how the work of the father affects the home. A man doing heavy labouring work comes home tired and hungry; he is not interested in the cleanliness of his home or the welfare of his children, all he needs is food and rest. Such men make the work of a health visitor difficult, but if she is taught to see things from his point of view she will be more tolerant when her advice is not followed at once. The student must see the actual conditions of work to realise the apathy met with in her visits. The moods of the men affect the women even if they do not work themselves. Women who work in mills, after a day in the close atmosphere of the mill, will not listen to a visitor who does not look at life from their standpoint, however much she may smile. Outdoor workers are more inclined to take a cheerful view and will listen more readily. The health visitor should be taught to remember that work conditions affect the home and home conditions affect the children. Students should see as much of any kinds of work as is possible in the neighbourhood of their training school.

Post graduate courses should be arranged from time to time and assistance be given by employers for workers to attend such courses. Health Visitors are apt to get into a groove and this leads to deterioration in their work. One such course was held in London last April for a week. Lectures were given by specialists and visits to interesting places were arranged. Some of the lectures were as follows—"Extension of the State Insurance to include the new Pension Act." This was given by a Secretary of the Hearts of Oak Society. "Pemphigus and other skin trouble of the new-born" by Dr. Eric Pritchard. "Housing problem." "Modern methods of breast feeding." Two short conferences formed part of the

programme and visits were paid to The Carnegie Centre, A Mothercraft Centre, and Hospitals to see light treatment. Demonstrations were given on remedial exercises and other things. Altogether there were 17 lectures, 4 demonstrations and 3 visits, 2 conferences and a cinema film. Perhaps this sounds too elaborate for India at present but courses on somewhat similar lines would be beneficial to all workers. An optional examination might conclude the week.

C.—Should there be more than one Standard of Training for Health Visitor ?

There should be one standard only. There ought to be facilities for teaching a Vernacular class up to the English standard, if well educated girls were forthcoming. Lectures and practical work could be given in the vernacular but there is one great difficulty, no suitable text books are available on the subjects taught. Then again very few books are available on general subjects and vernacular students are not able to read widely and their outlook is narrow and restricted; even story books can be educative. Then Health Visitors should keep abreast of the times and read the newspapers, and though there are vernacular papers, one would not always be able to see that the students made a wise choice. Technical papers and magazines are also necessary so that the student may see what is going on, what new methods are discovered and what progress is being made in other parts of India and the world in their branch of work. To do this a knowledge of English is essential so the ideal Indian worker, trained in her own language is a dream of the future. The one standard with A and B grades would seem the best method. 'A' grade being simply an honours pass and would naturally be obtained by the most clever students. There is no reason to think that 'B' grade students would not be just as good *practical* workers as 'A' grade girls. The most brilliant students at passing examinations are not always the best at practical work. Where there is more than one standard of training the danger is that employers, for the sake of economy, take the cheaper workers, but they expect the same skilled work from her that would be given by the higher paid and better trained woman. This the worker fails to give and the employer is disappointed and blames the training school. If there is a lower grade of training the student should be placed in a post as assistant to a senior worker; she should not be sent to a city to organise work. At present such students are not fitted for these posts and only failure and disappointment can be the result. Until employers realise that the best is not too good for the work, and is more economical in the end, it is better to keep to one standard of training and that the highest attainable.

THE HEALTH VISITOR AND HER WORK.

MISS M. RAYNOR, LAHORE.

One of the chief obstacles to providing an adequate supply of Health Visitors of the right type is the shortage of women coming forward for training. As far as the Punjab is concerned, at present the supply and demand is fairly equal, and I think that this is partly due to intensive propaganda, the Secretary of the Chelmsford League having been able to visit several places in the Province where she has been to the schools and interested the staff in the work of the Health Visitors, and to the Hospitals where she has talked to the doctors, enlisting their help in finding suitable candidates. I know that she herself feels that it has been of considerable value to interest the Punjab Government Training College Teachers in the work, and certainly numbers of enquiries have come through men teachers; many of these, too, have answered the advertisement in the Punjab Education Journal, which is the only advertising medium used by the Punjab Health School.

It is still more, I am sure, due to the fact that in our Province we are able, in some degree, to look after our workers and protect their interests, after they are working in their own districts. This is, of course, only possible where a health school trains workers for its own province alone and where there is some definite policy throughout the province regarding the work and conditions of employment of Health Visitors and where their work, if not actually under the control of the Department of Public Health, is at least correlated to it.

I consider that propaganda by means of meetings in men's and women's colleges, the Y. M. C. A. and Y. W. C. A. and personal dealings with the officials of hospitals, social service societies, etc., is the best way of securing more candidates for training, and that there should be some definite provision for safeguarding their interests, preferably a legal provision, after they are trained, and, in all cases, a woman inspectress to supervise them. When the public, especially the educated classes, whom we really want to attract into this work, realise that their women are going to be properly looked after, then they will be prepared to let them train. In theory, I think a large number of educated men are keen for their relatives to take up such a useful work, but they are also fully aware of its difficulties and drawbacks in practice, and will require an assurance that worker's interests will be safeguarded as far as possible.

II. With regard to the best form of training for Health Visitors, this will depend to some extent on the educational qualifications of the students, and here again it is difficult to

generalise personal qualifications, suitable age and the possession of a husband being often of more use than the Matriculation Certificate or even an Arts degree. However, I do think that an English education should be compulsory—firstly because, as education is at present, the knowledge of English implies a more thorough all round education, also the text books in the Vernaculars are very limited, and the student's field of reading is consequently very limited if she has to depend on them. So much more depends on the broadening of her mind and the enlarging of her mental range and development of her general knowledge and intelligence, than on the book work which she has to learn up for her examination. This is always a difficult thing to persuade students.

With regard to what they shall be taught, the one essential is that they should learn to apply their knowledge during their period of training.

We have found that, at the Punjab Health School, those students who can write the best test-papers, take the best notes of lectures and answer questions most smartly are by no means always those who make the best Health Visitors. Provided they are given thoroughly sound, up-to-date teaching in Hygiene and Sanitation, Maternity and Child Welfare, and Dietetics, other subjects should not be allowed to take up too much room in the Curriculum, though Economics, Physiology, Home Nursing, etc. etc., in so far as they serve to enlarge their vision and increase their practical experience and usefulness, may be included if the course is long enough. Vaccination we now include.

Practical work—always under the personal supervision of the teacher—in Home Visiting, Centre work and the Training of Dais and giving Health Talks to women is by far the most important thing in the training of Indian Health Visitors, and an unceasing vigilance on the part of the teacher as to what reason the Health Visitor has for what she says or does, is called for, as it is in the application of their knowledge to practical ends that almost all of them are weak.

All notes of lectures should be corrected, by the teacher and frequent opportunity for discussion given, and efforts made to persuade each student to take an interest in what is going on in the world outside of her work. Coaching is a great advantage. We make our students write weekly test-papers, in which we endeavour to be essentially practical and to make them use their common sense more than their factual knowledge. Each student during her period of residence is given a limited number of families to visit, whose progress she follows up throughout her period of training, writing very careful records of the progress of mother or baby which are periodically scrutinized and criticized by her teacher. This sense of

responsibility and really getting to know intimately her mothers and babies, is an important point, I think, and one which becomes impossible if the area visited is too large, and insufficient revisits to the homes are paid.

The improvement in methods of training which I would like to see included, is that an essential part of it should be semi-independent work after the passing of the examinations, at centres under the control of the training school staff, before the Health Visitors finally go to work in their own districts. Periodical post-graduate teaching we have not yet attained to, but the necessity for it should be borne in mind.

As regards standards of training, I can only speak as far as the needs of this Province are concerned. One grade of English course students is quite sufficient, the practical training of all students of whatever standard of education should be the same, so that any difference of grade in passing out is largely a question of difference of examination results and, as I pointed out above, facility in passing examinations is not necessarily the sign of a good Health Visitor. Local bodies, naturally enough, are not prepared to pay the higher salaries which would have to be asked for a so-called superior worker, when they can get, for a lesser salary, a thoroughly satisfactory and well trained Health Visitor whose aptitude for work and real keenness for the welfare of her mothers and babies have not prevented her difficulties with book-learning and self expression in a foreign tongue from labelling her as lower grade at examination time.

Up to the present time there has been no demand for a Vernacular standard of work in the Province but I think that there are distinct possibilities of usefulness in training this grade of workers in the future as assistants, only, to the higher English speaking grade.

I do not consider that this type of worker should ever be in charge of Health work in any centres and before training such workers there should be some guarantee that they should only be supplied to bodies already employing the superior type of worker; otherwise there is considerable risk of creating and supplying a demand for cheaper work by workers unfitted for the responsibility of teaching work and generally lacking in initiative and savoir faire, amongst all classes of the population, especially the well educated and English speaking women. Further the keeping of records in the vernacular makes the inspection of these difficult and also places such records in a lower category than that hitherto accepted as the standard for records of work of similar grade.

I do think that in spite of demanding an English education and English training it is not inconsistent to give students the opportunity of taking their Examinations in their own Vernacular.

THE HEALTH VISITOR AND HER WORK.

DR. A. HEADWARDS, CALCUTTA.

A.—How to obtain a greater number of candidates for training.

Few people in England and Wales have not heard about or seen some of the Child Welfare Work being done there. Can we say the same in India? Is Welfare Work well-known here? Is the need of it sufficiently emphasized? When a manufacturer advertises his goods he realises that a satisfied customer is his best advertisement. Does not the same apply to "Child Welfare Work?" Should not such a standard be established—that is tried and proved efficient—that its worth may become widely known? To secure this standard well-trained and efficient workers are required. Have we these workers? Are any of them Indian? Why is it that we find Indian women difficult to obtain for a Health visitor's training? The following may be among the reasons?

(1) *Lack of knowledge about the work.*—In Calcutta where there are 4 Indian Child Welfare Centres under the auspices of the Red Cross and one St. John's Ambulance Baby Clinic, it is surprising how few of the Indian nurses know anything of their existence.

(2) *Other more lucrative posts.*—Having been told of the existence of a Training School the next question is what posts they may expect when trained and what salary can be offered—Indian nurses, working privately in Calcutta may expect anything from Rs. 5—10 per day. The Calcutta Corporation employ a large staff of trained midwives on from Rs. per mensem plus a bonus of Rs. 3 for every case over 12 in number conducted in each month—most of the fully trained Indian nurses are of the opinion that other forms of work are more lucrative.

(3) The possibility of employment without a Health Visitor's certificate of training. The Corporation of Calcutta have lately opened "Milk Kitchens and Child Welfare Centres" and are employing Indian nurses without any special welfare training. The work done at these centres may or may not be welfare work in the true sense of the terms used, but the nurses consider that they are doing welfare work. If they can be employed without any special training, why, then, do we ask them to train?

(4) Lastly, and most important, is the question of the married Indian women. During her training arrangements can be made for husband and family but when appointed as a Health Visitor is she or is she not to be provided with quarters for her family? Is the husband to be, or not to be allowed to

live with his wife and family? This is a very serious question in Bengal. If we are to accept the married Indian woman, we are bound to think of her husband and family. Some consider it impossible for a husband to live with his wife in a large industrial centre—others on the other hand do not think it advisable that these women should live without their husbands in industrial centres. These then are some of the reasons for the difficulty in obtaining Indian women for training. How may they be overcome?

(1) 'Baby Week' is largely responsible for the making known of the work. The policy of encouraging school children to attend by establishing special 'School Days' is highly satisfactory. Can we not do more? Is it not possible for training Schools and Hospitals to encourage some of the nurses to apply for a special Health Visitor's training? Can it not be advertised in the Nursing Journals of India? And lastly, it is our duty, as members interested in this great movement, to lose no opportunity of talking to groups of nurses, students, etc., about our work.

(2) This is a question which cannot be settled by individuals. It is only by establishing one standard of work and a definite salary for all workers that this can be tackled—but it will take a very long time to accomplish.

(3) Unless and until all welfare work is established under one controlling head with certain definite rules of employment it will be impossible to attempt to deal with this question. The Child Welfare Division of the Bengal Red Cross Society has laid down a rule that the matrons at their centres must have a Health Visitor's training, but this only applies to their own 4 centres. How much outside work is being done over which they have no control?

(4) The question of the married woman is one that I cannot attempt to solve. Personally I am strongly of opinion that they should be allowed to live with their husbands and families but this is a very debated question.

B.—Methods of Training.

Having obtained the candidates how are we to train them? Is our present system of training adequate? My experience is confined to the Bengal Training School, and my opinion is that the training is sound and comprehensive. It is our aim to concentrate on theory first and then to make the students apply the knowledge gained by practical training. It is our aim also to obtain the most highly qualified and specialized lecturers for each particular subject. Perhaps the practical side of the training could be more thoroughly done by establishing a model Indian clinic in the same building as the Training

School. This has been our ideal but we have been unable to carry it out of want of funds. We have to satisfy ourselves by allowing our students to visit each clinic in turn. In this way varying ideas are assimilated which may or may not be beneficial.

C.—Standards of Training.

(a) The English Course.

(b) The Vernacular Course.

Unless and until a sufficient number of Indian women come forward for training the most reasonable thing to do seems to be to concentrate on one course, and that is the English one—Are we justified in spending large sums of money for training one or perhaps two Indian nurses? In Bengal most of the posts offered will be in connection with large industrial works, and for this form of pioneer work special women will be required. Therefore in view of the needs, we consider we are justified in concentrating on one standard of training.

THE HEALTH VISITOR AND HER WORK.

DR. CHINNAPPA, MADRAS.

The Health Visitor at Work.

It seems fitting to begin this paper with a description of the work that a Health Visitor is ordinarily expected to do. As her name implies, she is first and foremost a visitor. Just a regular and systematic inquiry in homes of "How are you"? "And how is the Baby"? with a friendly smile, is in many cases enough to produce excellent results. For it awakens in the mother so enquired of not only a new and proud interest in the young child but a sense of trust in the Health Visitor, so that visits to the child welfare centre for advice or treatment follow naturally, and as a matter of course. And in the experience of us workers in Madras, such friendships have lasted during nine years, *i.e.*, during the arrival of sometimes as many as half a dozen babies, and bid fair to last always. But the Health Visitor is also a teacher. Whether it be in the home or at the Centre, in mothers classes and at the clinics, she must have unbounded patience and tact, and a wonderful understanding of the conditions of each home from which those to whom she ministers come, if her advice and teaching are to be made acceptable and practicable. For, it is one thing to have been taught in the class room of a big institution that fresh air is essential, that overcrowding is harmful, that milk must be kept covered and clean, and that baby must have regular meals and regular hours of sleep. But it is quite another thing to attempt to practise such correct maxims either in a hut where during the monsoon the mother with her few days old baby sits huddled up in a corner trying to keep herself dry while the rain water rushes through, washing the "floor" which has never been raised above ground level, or in a room with thick solid windowless walls where a lamp is lit in the middle hours of the day to dispel darkness. The day is begun in most of these homes with not a thought of where the next feed for the baby is to be found, and each item in the day's programme takes place as ordered by the most pressing needs of the moment. The mother leaves her scrubbing or her cooking to run out to fetch a quarter anna worth of milk for the hungry screaming baby or more often satisfies its hunger for the moment with anything else more easily and cheaply obtained. It is into the midst of such conditions that the Health Visitor fresh from training, and with great ideas about the reduction of infantile mortality is sent, and asked to show results in a year or two, results which would show a definite fall in the infantile mortality returns! The woman who would be a successful

Health Visitor therefore needs to be one with infinite patience, courage, with determination to win steadily through to the end. She needs to have the ability to grasp the situation thoroughly, so that she teaches not only those among whom she works, but is able also to educate public opinion, and to present the best methods of solving the problem of child welfare in a manner her employers cannot but accept.

Health Visitors' Difficulties.

For the Health Visitor's place being a new one, it is usual for her to be called upon to do various and manifold duties, such as those of a vaccinator, a sanitary inspector, a midwife; really any odd job. One good gentleman, a highly placed sanitary officer, while once discussing the duties of a Health Visitor with me said that he thought she ought to look after the baby while the mother went out or had a rest. Another equally logical said that the removal of carcase from the street was part of the duties of a child welfare centre, as such a thing was inimical to the welfare of babies in the neighbourhood.

Where the Health Visitor works on a staff over which there is a superintending medical officer, these difficulties need not be met by her. But in district stations, where the staff perforce has to be small and where perhaps the health visitor is the only worker employed for child welfare work, it is quite possible for her energies to be thus frittered away in all directions, making it impossible for her to undertake child welfare work proper on any organized lines. The result in all such cases is that the Health Visitor gives up one appointment to seek another, and continuity of service, so important for both work and worker, is never possible. I have personally had several bitter complaints from Health Visitors out under local authorities, regarding the variety of duties that had been assigned to them, and I am more and more convinced that a body employing a Health Visitor should know thoroughly the duties to be expected of such a worker before employing her. This is only possible by means of propaganda, and the best propagandist is the Health Visitor, who is herself capable of educating and establishing public opinion wherever she may work. She needs therefore to be, as I have pointed out earlier, one able not only to formulate for herself definite plans of work to suit the needs of any particular place or people, but also to overcome all criticism which is bound to be directed against her, her work, and methods of it. Women joining this profession therefore need to have had a thoroughly good education, well-balanced judgment, and a sound opinion on all things, besides much tact and patience. Having thus dealt with the calls that the profession makes on the women desiring to enter

it, it is easier to discuss the different questions which form the subject of this paper.

HOW CAN A GREATER NUMBER OF INDIAN WOMEN FOR
TRAINING AS HEALTH VISITORS BE OBTAINED?

Recruits to Health School.

Speaking from my experience during the last nine years in the Madras Presidency. I can state that applicants for training as Health Visitors are not difficult to obtain. Most girls wishing to enter into a profession think either of teaching, medicine, or health visiting, as a most suitable profession for themselves on completion of their school course, and Health Visitors' salaries in the Corporation of Madras being till recently higher than salaries of secondary grade teachers, those who had neither the mind, nor the means to go through a long course of medical studies invariably turned to health visiting. How many of these were fit for the profession had to be decided by those selecting them. Girls sixteen years old, just out from school, and who were not prepared to obtain the very necessary midwifery diploma, could hardly be selected for the profession; and often a suitable candidate who had finished her midwifery could not be employed as there was no vacancy. A word of explanation is here necessary. There have not been many places for Health Visitors in Madras Presidency outside the Corporation of Madras, but the demand for them is steadily increasing, as is shown by the fact that whereas in 1919 the Corporation of Madras employed its first set of three Health Visitors, it now employs twenty-two Health Visitors, and is in a fair way to employ more. In any case the need for the work of Health Visitors in the city is now better recognised. A few districts have also employed Health Visitors and some are yet asking for them.

The Health Visitor's Qualifications.

For the reasons mentioned above in every way it seems to me desirable that the general educational qualifications of those seeking to join the profession should be higher than they are at present. The School-Final should be the very lowest requirement, but conditions of service should be attractive enough for even the University Graduate who may think of entering the Health Visitor's profession. The age limit of applicants should not be below 23, and a good experience in midwifery practice, preferably district work, is absolutely necessary. A statement of these requirements may seem to have nothing to do with the question of obtaining a greater number of Indian women for training as Health Visitors. But more are not required for training until their services are required by local bodies; and

more will not be required by these authorities until those now in the field of child welfare work show good results. The problem to be faced in the Madras Presidency is how may local bodies be made to realise the need for employing more health visitors. The Health Visitor to be employed by these should be such as would effectively meet their requirements, which at the beginning are bound to be supervision of, and a real help in, a great amount of midwifery work. And in this the Health Visitor with superior qualifications counts most. Stated briefly, the position is this, the number of those to be trained can best be increased (in Madras Presidency) by creating a demand for a greater number. This demand would naturally follow in the wake of good results achieved by Municipalities and local bodies already engaged in child welfare work and employing Health Visitors. Very careful selection of candidates for training therefore, is the most important consideration just now for the trials and difficulties of public service are new for Indian women, and many a worker otherwise good has been lost to the profession for this reason.

But it would not be fair, I think, to those already in the field or to those proposing to enter it to assume that the establishment of the Health Visitor as a very necessary agent in child welfare work in all Municipalities depends solely on the personality and qualities of the health visitor herself. A great deal depends naturally on the way in which her work is accepted in the opinion of the public and in that of the authority employing her.

Support of Local Bodies needed.

Indifference either to the good results already achieved by her, or to the difficulties in the way of her work, unfair criticism on the part of some members of the local body, ignorance on the part of these as to the exact nature of her duties and the results to be attained, all these are bound to affect adversely the type and number of women who apply to enter the profession. It must be understood that the work of the Health Visitor and of all child welfare workers lies among the ignorant and the poor, the criminal and the drunkard. Complaints, therefore, are bound to be many, and two of the bitterest complaints I have heard against these is that they wait for the placenta to be cast, instead of removing it by force at once, and that they cut the cord instead of allowing the placenta to be intact with the new born body for three days. These are but typical of the criticism to which they are often subjected. Sympathy and understanding on the part of the employing authorities, encouragement, and open appreciation of results already achieved help not a little to obtain suitable women in increasing numbers to join this difficult profession.

Prospects and Salary.

Their salary also needs to be graded to suit the type of women required, and the prospects of service made attractive and not too difficult. Under-staffing needs to be particularly guarded against. I have known more than one Health Visitor break down, and take a thorough dislike to her duties owing to hard work, night and day, continuously through long periods unbroken by any sort of relief.

**THE PRESENT METHODS OF TRAINING, ARE THEY ADEQUATE?
IN WHAT RESPECTS IS IMPROVEMENT REQUIRED.**

Health School as an Adjunct to a Child Welfare Scheme.

There is no doubt that the training institution should be attached to a complete scheme of child welfare work; for, facilities for practical training can best be found here. The ideal would be, of course, such a Health School adequately staffed and fully equipped but the smallness of the School in this Presidency at least does not seem to justify so large an outlay at present. The next best arrangement therefore is to make provision for the lectures in connection with a Medical College or School, the Hygiene Laboratory alone almost sufficing for all needs. The practical side of the training would yet be carried on in a Child Welfare Scheme. The School for the Training of Health Visitors in Madras is run under the joint auspices of the Madras Maternity and Child Welfare Association and the Madras Corporation. The school was started after a great deal of anxious waiting and correspondence, and Government recognised the School and appointed a Board of Examiners in consultation with the Madras Maternity and Child Welfare Association in October 1922. This Government recognition was found absolutely necessary, as without such recognition a satisfactory type of applicant could not be obtained, women being unwilling to take a training which was not recognised at least throughout this Presidency.

The Madras School for Training of Health Visitors.

Since the recognition of the school by the Government, suitable women have applied in larger numbers and it has thus been possible to raise the status of the Health Visitor. But great discouragement has been caused recently by the ill-informed efforts, though these have not been successful yet, on the part of some councillors of the Madras Corporation to do away with its staff of Health Visitors and to abolish the Health School. The opinion of these Councillors seems to be that the Health Visitor could far more profitably spend her time doing the work of a senior midwife.

Need for Educating Public Opinion.

From this it is clear that a great deal of propaganda work has yet to be carried on among the members of the local bodies themselves, before the Health Visitor's place as a child welfare worker is firmly established. In any local body it is the individual opinion of members that form the majority, that counts, and public opinion as to the value of a Health Visitor's work, or even of child welfare work altogether, being a changing one, owing to the various factors, political and otherwise, influencing the minds of individual councillors, doubts as to the stability of the school under such management cause some uneasiness often. This difficulty is of course bound to be felt in any pioneer work.

The Value of Government Support.

Yet mention needs to be made of these difficulties and the encouragement and support, particularly that given by the Government, can never be too much. In Madras the next step forward in the way of securing the stability and continuance of the Health School is to place it under Government control.

The Syllabus of the Madras School. Some Suggestions for Improvement.

A copy of the Syllabus of the Madras School for the Training of Health Visitors is herewith attached. The course of lectures seems to be a complete one, but facilities for practical demonstration, such as the examination of slides and specimens under the microscope, the analysis of common foodstuffs and of articles of diet sold in the bazaar are wanting. For this reason it is of immense benefit to have the school attached to the Hygiene department of a Medical College. I have also found it of increasing importance that the Health Visitor should be trained for public speaking, and for taking classes for Girl Guides, married women, and High School girls. For educational authorities and others are now keenly alive to the importance of the subject of child welfare as one to be taught in the ordinary curriculum, and demands for Health Visitors who can take such classes are already being made. I am gratified to be able to report that the last set of candidates admitted for training in 1926 were all able to do this to some extent. I watched with great pleasure the manner in which they acquitted themselves in private homes, where I had taken them to test their way of dealing with insanitary conditions in the home. One of them was sent during her training to do a public Lantern Lecture, and she acquitted herself creditably. This aspect of the training, which is most important, and which ought to receive a great deal more attention than any other, needs to be

emphasised. At the same time the manner in which it is done depends almost entirely on the woman in charge of the School. The latter therefore needs to be one with University training and diploma, and with much practical experience in Child Welfare work.

**SHOULD THERE BE MORE THAN ONE STANDARD FOR
HEALTH VISITORS TRAINING.**

One Standard with Provision for Gradual Improvement.

I should say clearly not, from the point of view of this Presidency, and I cannot but think, that the feeling of the others is about the same for the same reason. To emphasize what has already been said therefore, the work before us just now is to increase the demand for the Health Visitor and to make her work acceptable and popular. It is not that there is no need for the work of more than one grade of worker, but local bodies would invariably ask for the worker on the lower pay, owing to financial reasons, and thus the more highly trained worker would be crowded out of the profession. The experience of nine years, besides, has taught that the Health Visitor with continued service on the staff of a properly organized scheme has been found more useful in positions of trust and responsibility than the raw young hand with higher educational qualifications and training. For in this profession as in no other, the way in which the worker is regarded by the mother and others among whom she works counts for much in the attainment of results and it is always the older experienced woman who is on demand, and who is well received. Local bodies would therefore naturally fall back on such for the continuance of their welfare work rather than on a more highly trained but also a more expensive product. If the aim is to raise the quality of the worker this were best done by first producing that class of workers which will be readily absorbed, and then when these have paved the way and made the profession an accepted one we may gradually raise the standard of training and the status of the service. As a matter of fact this is what has been done in the Madras Child Welfare Scheme. Two of those who were taken on for training in 1919 were experienced and reliable midwives. They were hardly able to write their own names well in English, but as the service became more attractive in pay and prospects, it has been possible to raise the requirements of admission into the school, so that several who had completed the School Final course, and who had besides their midwifery diploma a three-years' course in general nursing, have been admitted since. The production of a better type has made it possible to entrust a Health Visitor with increasing responsibility and more difficult duties, such as giving of public lectures, and the

maintenance of records and statistics dealing with her work. The Health Visitor herself has been able to take an understanding interest in her work, in its value, and to appreciate its far-reaching effects on the public welfare.

Higher Scale of Salary Necessary.

The salary that should be offered to the more highly-qualified worker needs however to be discussed at length. The scale of salaries in Madras is lower than that in Northern India. A medical woman of the Sub-Assistant Surgeon grade in Government service starts on a salary of Rs 65 per month rising to Rs. 250 in a period of 25 years. Those employed in the Corporation of Madras are started on Rs. 100 per mensem as they are debarred income from private practice, which workers in Government service are allowed. Such being the case, it is necessary that the salary of the Health Visitors should not be of a grade above that of the medical woman. The grade of pay for Health Visitors in the Madras Corporation fixed in 1919, is Rs. 50-3-80 per month together with free quarters or in lieu of it, a house rent of Rs. 8 and a conveyance allowance of Rs. 15 a month. Since 1919, the salaries of teachers in Government service has been revised and a trained graduate in the Educational Department starts on a salary of Rs. 75 per month rising to Rs. 250 per mensem. It is important therefore that the Health Visitor should not be made to appear as an expensive employee to any Municipality, the more so because municipalities in general have not yet realised the great need for the employment of Health Visitors. At the same time it seems reasonable considering the arduous and difficult nature of the duties that a Health Visitor is called upon to do, to fix her salary at the same rate as that of a trained graduate teacher, so that women with University training are attracted to the profession. But at present this may only be the ideal, for the result that must first be attained is the increasing employment of less expensive type of Health Visitors by a larger number of local bodies and municipalities.

PROSPECTUS.

SCHOOL FOR TRAINING OF HEALTH WORKERS.

Conditions of Admissions.

1. Candidates shall be required to pass at least 2nd Form. Preference will be given to those who have passed the School Final or any equivalent examinations.
2. Candidates shall be required to provide a diploma in:—
 - (1) General Nursing and Midwifery.
 - (2) Midwifery.
3. Candidates shall be 21 years of an age.
4. Candidates shall be required to produce testimonials of good character.
5. The training shall include:—
 - (a) Practical course in the Child Welfare Scheme.
 - (b) Theoretical course in the following subjects as stated in the syllabus of lectures.
6. Candidates shall be required to have good knowledge of any one vernacular.
7. Candidates shall be required to live in the quarters provided for them.

LECTURES.

General.

1. Objects of Child Welfare Scheme.
2. General, Anatomy, the Skeleton.
3. The various Systems of the Body.
4. The Respiratory System.
5. do. do.
6. The Circulatory System.
7. do. do.
8. Examination and Resume.
9. The Alimentary System.
10. do. do.
11. The Nervous System.
12. do. do.
13. Examination and Resume.
14. Physiology of Pregnancy.
15. *Hygiene*: Composition of Air.

16. Impurities in Air.
17. Ventilation.
18. do.
19. Examination and Resume.
20. Water Sources.
21. Water, Purification and Distribution.
22. Water-borne Diseases.
23. Examination and Resume.
24. Foods.
25. Foods.
26. Soils, Sites, Buildings.
27. Removal of Refuse and Excreta.
28. Sewage Removal.
29. Examination and Resume.
30. Personal Hygiene.
31. Infectious and Contagious Diseases.
32. Insects, etc., as Disease Carriers.
33. Calculation of Death Rate, etc.
34. Examination and Resume.
35. *Medicine*. Infectious Disease. Home Nursing.
36. Diseases of Respiratory System.
37. Adenoids, Tuberculosis.
38. Examination and Resume.
39. Diseases of Kidney and Bladder.
40. Diseases of Uterus, Tubes and Ovaries.
41. do. Alimentary System.
42. do. Nervous System.
43. do. Tropical Diseases.
44. Examination and Resume.
45. *Surgery*. First Aid. General.
46. Bandages.
47. Hæmorrhage.
48. Fractures.
49. do.
50. Drowning, Suffocation, Poisoning, Burning.
51. Examination and Resume.
52. *Maternal and Infant Welfare*, Prematernity.
53. Midwifery, Supervision of Midwives, etc.
54. Infant Welfare, General.
55. Infant Feeding.

56. Growth and Development of Infants.
57. Examination and Resume.
58. Diseases of Children.
59. do. do.
60. The Organisation and Conduct of a Child Welfare Centre.
61. do. do. do. do.
62. Infantile Mortality.....Calculation, etc.
63. Examination and Resume.
64. *Home Nursing*.
65. do. do.
66. do. do.
67. Examination.

HEALTH WORKERS SCHOOL.

Form of Application.

1. Name in full.
2. Age (last birthday).
3. Nationality.
4. Religion and Caste.
5. Single, Married or Widow.
6. What language do you speak ?
7. What languages do you read and write ?
8. What Certificates or Diplomas have you gained ?
(send copies).
9. Do you attach—
 - (a) the necessary certificate from a magistrate, clergyman or other responsible person to the effect that the sureties who will execute a bond on your behalf are persons of sufficient means ?
 - (b) a medical certificate of physical fitness from a commissioned medical officer ?
 - (c) any other certificates of moral character and mental abilities you may have ?
10. Do you possess any means of support besides the stipend applied for ?
11. What is your permanent address in full ?
12. Names of Municipality or other body forwarding application.
13. Whether in receipt of a scholarship.
14. Whether bound by an agreement.
15. Is the candidate willing to accept rules of the School ?

**WHAT ORGANISATION IS REQUIRED TO EFFECT
REGISTRATION, TO EXERCISE DISCIPLINARY
CONTROL, AND REGULATE THE CONDITIONS
OF EMPLOYMENT OF HEALTH VISITORS.**

MISS M. SIMON, LAHORE.

With regard to the Registration, Disciplinary Control and Supervision of the work of Health Visitors, I suppose we are all agreed that some organisation is absolutely necessary, if the interests of the work, the workers and the employers are to be ensured. It appears to me that there are two ways of securing this. There must be, I am convinced, a central administration within each Province either through Voluntary Agency, or through the Director of Public Health or some person or persons whom he may depute to act in his stead. The latter seems to me to be by far the most satisfactory arrangement, as in any case the work of the Health Visitor belongs essentially to that of the Department for Preventive Medicine, and should therefore be co-related to the work of the Public Health Department. May I give as an example the arrangements we have made in the Punjab for securing Registration, Disciplinary Control and Supervision of our Health Visitors by a Voluntary Committee as it will then be easier to comment on the defects of the system and to invite criticism and suggestions from other quarters? First let me say that the Punjab Health School trains Punjab Women for work in their own Province only, so the placing of them is a comparatively simple matter.

I, as the paid Secretary of the Lady Chelmsford League in the Province, am attached to the Health School but am also permitted to visit the places where our Health Visitors are working, or to where they are going at the conclusion of their training. The advantages of this arrangement are obvious. I meet the Committee under which the Health Visitor is to work—sometimes a branch of the Red Cross Society or an affiliated branch of the Lady Chelmsford League, a Municipal or District Board Committee, or Women's Hospital undertaking Health work,—and explain fully what the nature of the Health Visitor's work is (often a most necessary preliminary) and discuss with members the conditions of employment, rate of pay, hours of work, etc. etc. This is in no sense an official visit, as I have no official status, but in practice it generally works fairly well, and is, I think, to the mutual advantage of employers and employees.

With regard to Registration, we have a Register of all fully qualified Health Visitors working in the Province, though at present we can only advise local bodies against employing those who are not properly qualified (*i.e.*, who do not possess the Diploma

of Midwifery and the Certificate of a recognised Health School English Speaking Grade).

This Register is no more than a Record of their names and qualifications, but the name of any Health Visitor proved guilty of any serious breach of conduct would be removed from the Roll and her chances of re-employment within the Province would be small.

By what Tribunal would this step be taken ?

By the Disciplinary Board, a Voluntary Committee consisting of the Chairman of the Lady Chelmsford League, the Secretary, (myself) and one other member, an Indian lady.

As a matter of fact, there has as yet been no case brought before us, but I think the procedure would be as follows:—Either the Health Visitor or the Secretary of the Committee employing her would write to me with a story of the trouble, I should ask for a written report of what had occurred, from the opposite side, and should call the Disciplinary Board to discuss the case and take their advice before proceeding to the place to see the delinquent, and report to them again after collecting as much evidence as possible locally.

If they decided that the case against the Health Visitor was proved, her name would be struck off and the local committee advised to dismiss her.

Against whom a law suit would be brought by the delinquent, remains to be seen !

If, on the other hand, a Health Visitor were being improperly treated by her Committee—and this has occurred on two occasions, I should not hesitate to telegraph recalling the Health Visitor to Lahore, if I felt she were in any moral danger, and to keep her away while investigating.

I am quite aware that this proceeding is hardly constitutional, but as things are at present, I am determined that, if possible, women workers and their interests shall at all costs, be protected.

We have now reached my third point—*i.e.*, the regulation of the conditions of employment, pay, etc., of Health Visitors. This is a difficult matter where there is no statutory body with powers to regulate it. What we do is, to send to the Committee which is proposing to employ the Health Visitor, a list of Rules—appended—which we ask may be complied with—and in every case this has been done, but simply as a matter of courtesy on the part of the employing body. The question arises as to whether, in the event of a local body paying the stipend for a student at the Health School, we, as a Voluntary Committee have a right to make any conditions as to what she shall do and what she shall not do, when she goes to work for that Committee. We

certainly have no right to enforce anything ; the position is therefore a most anomalous one and one which, I feel, if a misunderstanding or any ill-will arises at any time, between the employing agency and the training agency, may break down completely.

1. With regard to the Central Provincial Agency training and supervising Health Visitors, I should like to see in each Province, a Special Department attached to, or an integral part of, the Department of Public Health, with statutory rights to exercise supervision of the workers and some executive power over local employing bodies. An essential part of such a scheme would be a qualified woman worker to act under the Director of Public Health as Inspectress for Maternity and Child Welfare work. All appointments of Health Visitors made by local bodies would have to be made with the approval and sanction of the Director of Public Health, who would frame Rules and Regulations for their employment, have legal powers to act in case of breaches of the rules, and who, subject to the fulfilment of certain conditions by the local authorities, would have the power to sanction Grants-in-Aid, which would be paid annually, provided the report of the Inspectress, as to the proper working of the Branch, were satisfactory.

2. With regard to the local employing authority, it would not much matter whether the Centre were Municipal or District Board or under a Voluntary Committee—my own impression is that where there is a keen Deputy Commissioner, or his wife, or any person with a special knowledge of Child Welfare work, or having special opportunities for enlisting local support and interest—a Voluntary Committee, subsidised by the District Board or Municipality is the best arrangement.

Of course, the uncertainty due to the probable discontinuance of such voluntary interest due to transfer, furlough, etc., militates against the success of this scheme for any length of time. Provincialisation of the Health Visitor service is my ultimate ideal. In any case, the local Health Officer should be the administrative officer of the Child Welfare Committee and there should be always a woman on the local Committee to whom the Health Visitor can turn in case of need, and the Inspectress for the Province must be given the right of inspection. A proper agreement between the local Committee and the Health Visitor, of a standard pattern, should be drawn up, and clearly defined regulations made, standardising the work throughout the Province.

Rules for the Employment of Health Visitors.

1. The Health Visitor should not be required to do any night work. Between the hours of 8 p. m. to 6 a. m., the dais should be told that they cannot call her to their cases—any emergency case must be sent to the Hospital.

2. The Health Visitor should work under a committee, some members of which should be ladies, to one of whom she can always go in any difficulty.

3. The Health Visitor must, if unmarried and living alone, be given quarters in a hospital compound or with reliable people of her own religion.

In no case should she be expected to live alone in the city, though her centre should be as near her work as possible.

4. A woman chaprasi for the first few months is both a protection and an assistance until the Health Visitor is known to the city and can find her way about.

5. An area, in which the total number of births does not exceed 300 per annum should be chosen for her to start work. If her work is spread over a large area there can be little good result expected from it. A daily list of notified births should be supplied her.

6. It is particularly requested that the Health Visitor may be asked to keep records of the pattern supplied.

These can be copied locally, or obtained through the secretary. These records are kept at almost all the centres in the Punjab, and facilitate inspection as well as affording the necessary information.

7. The Health Visitor should never be asked personally to conduct a confinement case, only to be present with the object of training the dai, and giving her the necessary assistance. She should not be offered money rewards for her work. An outfit should be supplied for midwifery cases.

THE HEALTH VISITOR AND HER WORK.

MRS. T. H. SYMONS, DELHI.

The Exercise Disciplinary Control of Health Visitors.

I can only write of the method employed in South India, that is, the work as I know it.

This is a very difficult subject in the East where there is absolutely no idea of discipline in the sense in which it is meant in the West.

The only way is to lay down certain rules—

1. Behaviour.
2. Hours of work.
3. Registers to be kept and regular inspection of these and the centres.

Behaviour.—This sounds rather as though the Health worker was still at school, but unfortunately it is very necessary at the present stage of women's work, to make certain rules: these cannot be laid down, but must vary in the various districts.

It is only within the last few years women have left their homes and worked. So strictly were they kept that now, when mixing freely, they may become lax: any condoning of this brings the whole scheme of Child Welfare into disrepute, also the better type of women will not take up the work.

This work is really difficult for Indian women, they must be protected and helped, it is not possible for them to live by themselves, some members of their family should be with them.

A warning should be given if their behaviour is not satisfactory, if anything further occurs, instant dismissal. This may appear hard, but I am firmly convinced it is the only method understood.

No health worker I consider should be allowed to take a private fee. It is only human nature if more attention is given to those who can pay, than to others. The health worker should have nothing to do with collecting fees. This should be strictly adhered to, otherwise you cannot have discipline.

Any insubordination, neglect of duty, such as not reporting cases, neglect or cruelty to the children in any form—again there should be a warning and, if persisted in, dismissal, however inconvenient it may be to those in authority.

I have put behaviour first as it is really very important that the type of woman employed should gain the confidence and respect of the people among whom she is working: if she has not gained these any amount of visiting, lecturing, etc., will not be of any avail.

Hours of Work.—These should be definitely laid down and the worker checked, if the time is not adhered to, excuse should not be allowed.

Registers to be Kept.—If the Health Visitor is in charge of midwives, she is responsible for their registers. Registers are really very important and should be very carefully thought out, arranging that one register checks the other. They should be so simple that an untrained helper can understand them. Very often women and students can be got to visit health centres and help with attendance registers if they are simple and leave the workers free to attend entirely to the children, also they can then be checked by a member of the Committee in charge of the work.

This helps with the discipline of the worker considerably. She knows that someone is taking an interest in the work done, especially the visiting registers. In this way slackness of work is prevented.

Centres should always be inspected at least once a week; and not on fixed days, by some responsible person, who is in charge. Also she should not be changed too frequently, otherwise there is no continuity of ideas and the worker only gets muddled. I know this is very difficult with the changing population, but very important and very necessary.

There is always a tendency to leave the work entirely to the health visitor, usually giving her no assistance, through ignorance and also indifference. Then when things become radically wrong they blame her entirely—and again when rules are broken, exceptions are made, which is I think fatal to discipline anywhere.

To Regulate the Conditions of Employment of Health Visitors, pay, etc.

In a country like India which has as many varying races and more varying customs for women than Europe, to attempt to lay down the conditions of employment and pay for the whole country for health visitors, is impossible. They must be able to live in the villages among the people.

The only way any regulation of employment and pay can be achieved is to let each Presidency and Province have their own Service or Association and each have their own rules of employment and pay.

The health visitor should whenever possible be a native of the Province or Presidency and speak the language used in that particular district in which she is working.

If it is not possible for one Service or Association to undertake the work of Maternity and Child Welfare in the Presidency

or Province there should be at least one central body to which the other societies or centres are affiliated, in order that rules of employment, pay, etc., can be regulated. Otherwise it would be impossible for a small district or town to have a health visitor. They could not afford to give pay and the same conditions as a rich district or town. Consequently there would be great discontent and the poorer district or town would find it impossible to keep the health visitor. I consider the conditions of employment and pay should be that which the smaller and poorer district or town can afford to pay. That does not mean that the richer district or town cannot increase their work by employing more health visitors.

I think a fair pay is that of a midwife in a Government hospital with board and dhobi in a consolidated sum, with free furnished quarters and free conveyance. A Health Visitor has altogether 2 years training. She has her own home and rarely has night work, her pay just comes under that of a sub-assistant surgeon. I have heard that she should be compensated for loss of private practice. The answer is that a nurse or midwife in hospital is not thus compensated. Also the training of a health visitor is not such a long course as that of a sub-assistant surgeon.

The Central Board should have power to send an inspector touring to inspect the work of the health visitors and see that the health visitor's quarters are adequate and that the work is health visitor's work. There is great ignorance still among the public as to what a health visitor's work is. The inspector should be able to point out mistakes to those in authority.

Another means by which the Central Board can give assistance is by calling for six-monthly reports from all the branches, sending the form of the report with the headings of the various activities which are being worked in the various branches. This gives the branches an idea of the work expected and the Central Board how much work the health visitor is doing. I think lack of co-ordination of the various branches or centres in a Presidency or Province often brings the whole scheme of Maternity and Child Welfare into disrepute usually from the ignorance of the people in charge of various branches and centres.

Maternity and Child Welfare, especially the Maternity part, is not meant to compete with the private practitioner in those cases where the patient can well afford to pay. There are not sufficient health visitors or midwives in a district yet, that they have the time to attend to all the rich and poor. Therefore, it is more than likely that if they attend cases where a fee can be paid they are neglecting those that cannot afford to pay.

Health Visitors are not supposed to compete with doctors. Their duty is to prevent sickness and to persuade the people who are sick to see a doctor or go to hospital.

Inspections and reports would enable the central board to see that health visitors were only employed in their own duties. Therefore, the whole scheme of Maternity and Child Welfare would be well carried out, better work would be done, and more interest taken by the public.

ANTE-NATAL WORK.

DR. A. HEADWARDS, CALCUTTA.

My knowledge of Ante-Natal Work in India is limited to Bengal and here there is *no* organised Ante-Natal work. In making this statement I am open to contradiction but I have made very careful enquiries. The extent to which pre-natal work is done in Calcutta is as follows :—

(1) Ante-Natal Clinics are held once a fortnight at the St. John's Ambulance Sisters' Baby Clinic which is for Anglo-Indian women only.

(2) Ante-Natal Clinics are held once a fortnight at 3 of the 4 Indian Baby Clinics under the Child Welfare Division of the Red Cross.

(3) An Ante-Natal Clinic has within the last month been started in connection with the new Welfare Centre at the Kanknarrah Jute Mill, Kanknarrah. On enquiry at the Maternity Hospitals in Calcutta I find that there is no special Ante-Natal Department. Patients who come to the Out-patient Department are advised to come regularly for examination but few take advantage of this advice, and are at the best irregular in attendance.

Should this condition of affairs be allowed to go on in face of our knowledge of the needs of the pregnant woman for special attention and consideration?

How can this work be extended and improved, and what are the best methods of organising it? To answer these questions we have first to consider the needs—what are they? Definite protection of the mother and infant during the period which begins with connection and ends when the child is weaned. But this is not all—we must go back one stage further and protect the child even before conception. The future of the child depends greatly on the state of the health of its parents. So that anything that is done to preserve the health of the parents improves the quality of the germs which produce new life. The campaigns against the great social evils, *e.g.*, alcoholism, syphilis, etc., therefore play an important part in the protection of unborn children.

After conception the lives of the mother and child are associated during all the ante-natal months and the child can be adequately protected through its mother. Professor Couvelaire states that "Pre-natal protection should be both medical and social and insists on the necessity for social protection and claims that future mothers should have adequate care during the period of pregnancy." He also states, rightly, that medical care

of the mother and child during pregnancy should not be reserved for a privileged minority. He advocates making the declaration of pregnancy as soon as it can be definitely established—compulsory. In daily life, all those who have studied these questions should get into touch with future mothers and direct them to those who are qualified to advise them during pregnancy.

You are all familiar with the special needs of the pregnant woman and know that special advice is required re-careful dieting, improved elimination, avoidance of fatigue, etc. To accomplish this satisfactorily the woman must be seen and overhauled at short intervals (3 to 4 weeks). If, in spite of our incomplete knowledge, pregnant women are supervised and carefully treated, the graver toxæmias seldom develop. In addition to this there is the more definite examination late in pregnancy, with the object of recognising or preventing the complications of parturition, *e.g.*, malpositions of the child, deformities of the pelvis and tumours obstructing the canal.

In this work, as in everything else we undertake in India, we are up against caste prejudice and superstition. Any properly organised scheme for ante-natal work, or "Preventive medicine as applied to obstetrics" as it is described by Professor Munro Kerr must therefore include :—

A.—Teaching in Schools—

- (1) Dangers of alcoholism, syphilis, tuberculosis, etc.,
- (2) Simple child welfare,
- (3) Mothercraft (for older girls).

B.—Ante-Natal Clinics which may with advantage be attached to Baby Clinics.

The programme for these Clinics is as follows :—

- (1) Supervision of pregnancy up to maturity.
- (2) Early recognition and rectification of faulty presentations.
- (3) Recognition of the causes of difficult labour and the timely adoption of preventive measures.
- (4) Recognition and treatment of any abnormal conditions which may disturb pregnancy.
- (5) Discovery of certain disease, *e.g.*, Syphilis, and arrangement for the treatment thereof.
- (6) Discovery of tuberculosis and the preservation of the new born infant from infection.
- (7) Adoption of all measures likely to favour the confinement of the mother and rearing of the child.

- (8) Such measures, as examination of the urine for albumen, measuring blood pressure, testing the blood for the Wasserman reaction, and if possible, Radiography.

In these clinics prophylactic methods must be recommended. In addition to watching over the health of the mother, the future of the coming infant must be secured and every effort made to ensure that the child shall obtain its mother's milk and should not be separated from its mother. The education of the mother re the care and nursing of her baby must be begun in these ante-natal clinics. In close connection with the ante-natal clinics must be

C.—A Maternity Hospital for in-patients (not only for confinements but for treatment during pregnancy).

D.—Anti-Syphilitic and Anti-tuberculosis Dispensaries.

E.—Consultants on special diseases, *e.g.*, Heart disease—on the staff of the Clinics.

To carry out the above scheme in its entirety would require money, as it is necessary to have a fully equipped laboratory and a well trained staff, but a modification of the above might be attempted and any ante-natal work might be done in conjunction with the already existing maternity hospitals and established Government laboratories.

The success of these methods in other countries and the reduction in the maternal mortality and morbidity should alone justify the trial.

Since methods of diagnosis and preventive treatment have been improved, made known, and applied, the number of cases of destruction of the infant before birth by embryotomy, etc., have decreased considerably. It will also be possible to combat infant mortality due to congenital weakness resulting from premature birth, not by treating babies born before their time, but by preventing them from coming into the world prematurely. Premature births are often due to the mother overworking during pregnancy—the best prevention against this is rest. This rest during pregnancy is particularly necessary and this is a special problem which will arise, more particularly in any form of ante-natal work done in connection with welfare centres in the large Industrial towns.

ANTI-SYPHILITIC TREATMENT DURING PREGNANCY.

DR. ANNA BRAMSEN, MARDAN, N. W. F. P.

The subject, on which the Conference Committee has shown me the honour to invite me to write a paper, is a subject which deserves our keenest interest and attention. Great damage can be done by neglecting anti-syphilitic treatment during pregnancy, on the other hand, by paying it due attention, a tremendous benefit is bestowed upon both mother and child.

I am not supposed to speak about the diagnosis of Syphilis during pregnancy, but before I enter upon my subject proper, I may be allowed to express the wish, that doctors to women in India were more vigilant on this point, than—as seems to me—they often are. The manifestations of syphilis in the East are often very different to the manifestations most familiar in the West, and as the majority of the books written on this subject are written in the West, it is but natural, that they should bear the marks thereof.

The scarcity in the East of symptoms from the central nervous system in the later stages is a well known fact, but I have nowhere found the theory of Lues congenitalis in the second generation put forth. I have myself no doubt as to the existence of Syphilis congenitalis in the second generation in abundance in the East. If this theory be true, it is of great importance to our subject, for in that case, the continued inheritance in syphilitic families of the disease can only be broken by the energetic stepping in with anti-syphilitic treatment by the doctor.

The deceptive factor in this case is the lack of a history of infection, perhaps the total absence of syphilitic manifestations in the pregnant woman and her husband—but here one may get valuable hints from examination of aunts and sisters and parents, etc. In the East we have not only a fight to fight with, or rather for, syphilitic individuals—but with syphilitic families—and I should, from my experiences on the borderland of Central Asia say, even with syphilitic clans.

This interesting subject I shall have to leave and hasten on to the not less important one of the actual way in which to combat this serious infection.

About treatment of Syphilis during pregnancy the first thing to be said is, that treatment should be started on the earliest possible date, and that it should be as energetic as possible because the health and life of two individuals are endangered.

But after having said this, I want at once to emphasise that great caution should be taken not to do any damage to the kidneys. All the metals used in the treatment of Syphilis can harm the equilibrium of the tubuli and cause albuminuria, and as the kidney to start with during pregnancy is a *locus minores resistentiae*, this is a momentum of great importance.

Before administering any of the 3 metals in question (Arsenic, Mercury and Bismuth) a pregnant woman should be carefully examined. The most important complaints to be on the look out for are kidney trouble, heart-disease, disease of the intestines and skin diseases. These four regions must not be forgotten. Besides that of course one ought to be on the look out for all other possible defects, as any constitutional disease will compel one to more cautions administration of the remedy.

Of the Arsenical Compounds I shall only mention the groups 606 and 914.

I hardly think that any of us will vote for 606 because of its complicated way of administration. What a splendid arsenical compound it is, however, everybody knows, and the world is greatly indebted to Ehrlich for producing it and throwing it on the market only 17 years ago.

We are no doubt all more familiar with the group 914. It may be less powerful, but it also seems somewhat less dangerous.

Of the 914 group I only want to mention Neosalvarsan Novarsenobillon and Sulfarsenol used so much in the army intramuscularly. (With the exception of the French compound Hectine I have never given any arsenical compound but intravenously, but I certainly think that we, who deal with women of all types, ought not to forget the intramuscular administrations.)

Of the Mercurial preparations I only want to mention unguentum hydrargyrum and the insoluble preparations for intramuscular injection. The soluble preparations may be of quicker effect, but no patient would like to be injected daily for a longer time. The insoluble preparations, emulsions of calomel and metallic Mercury, need only be given once a week.

For the inunctions I want to advocate very strongly, but to that I shall come back later.

The third metal used in anti-syphilitic treatment is Bismuth.

It has only been in use for a few years, but any way on the Continent it has gained tremendous ground.

There are many patent Bismuth Compounds, no doubt very good but also rather expensive. From experience I only know

Bismuth hydroxyd, and the special Danish Emulsion I use intramuscularly, costs me less than an anna per injection. It cannot be had on the market but can be made in every fairly up to date Laboratory. I have used it alone, together with Pot. Iodide, with very good results.

Now, how to combine all these different remedies in the best and most effective way during pregnancy. There are hundreds of ways of doing it, but the routine I should suggest is as follows :—

Neosalvarsan 6 weeks, one injection a week beginning with 0·3 increasing to 0·6. Together with this, two weekly Bismuth injections of 25 etgr. Bismuth hydroxyd but in all not more than 8 or 10 injections of this.

After these 6 weeks, one month's rest, then again 8—10 Bismuth injections; after that 2 months rest and then for 2 or 3 years 8—10 Bismuth injections 3 times a year.

After such a treatment the woman should be perfectly cured, and she should also during such a vigorous treatment have a chance of having a healthy child.

I suppose, we have all had unpleasant experiences with Salvarsan injections so as to be kept on our guard. The Garisch Herxheimer reaction must always be kept in mind, and also the possibility of abortion (which however is there in any case)—but as Syphilis is such a serious disease, and in this case both mother and child run a risk, I think it is our duty to take our part of the risk and go ahead with the treatment.

In the case of secondary and tertiary Syphilis as well as in Lues cong. tarda, it is advisable to combine the Salvarsan-Bismuth treatment with Pot. iodide, either administer it together with the metals or in the periods of rest.

What I have described here, is a treatment for a patient who wants to get well at all costs and have a healthy baby.

It is a rigorous treatment, but if one starts with a dose of 0·3 of 914 and watches one's patient and before anything else the urine, I think it is one's duty to try to carry this scheme through. To guide, one should of course have the Wasserman test made after every course, but a negative W. should not always be allowed to stop the treatment. However, having been a doctor to Indian women for several years, I cannot help getting an utterly hopeless feeling, when I look at this proposed treatment and then think of the majority of patients, I at least have had to deal with, and I am sure, that any lady-doctor in India will admit, that only a very few of her patients will have patience and perseverance enough to submit to such a scheme of treatment.

The just possible treatment of the majority of our syphilitic patients interests me far more than this thorough and systematic treatment, of which one can read in any book—but which in our case is rather an Utopia.

The way, in which I tackle this difficult type of patients, that is the patients in the outdoor department and the patients in the common wards, is by ordering inunctions of blue-ointment gr XXX five days running with bath on the 6th day to the out Pt—and Bismuth hydroxyd etgr. 25 intra muscular twice a week and Pot. iodide to the inpatients.

All the patients have to have very particular instructions about mouth wash, but in the case of Bismuth treatment it is a great advantage, that it is so much less poisonous than any of the other metals. With this simple and cheap treatment (the whole country-side has got familiar with our inunctions) we have had extremely nice results. Women in this country believe very much in rubbings—what they in our part of the country call “malish.” This their liking for inunctions, I think, one ought to utilize and although I never expect to live to see a proper course of 90 or more inunctions carried through, I still believe, that a great deal of good can be done also with less thorough treatment.

As a matter of fact, it has been very unsatisfactory to write such a short paper on such a tremendous and important subject and I wish to ask you to excuse the fact that my dealing with the problem has been so superficial and—no doubt, so one-sided on many points.

An effective campaign to combat venereal diseases in India can hardly be said to have been provided for yet and I think, that it is with great hopes we all, who are interested in this problem, have learned of the British Social Hygiene Council delegation this autumn, because we realize, that without thorough information of the public about the treatment of syphilis and without special centres for free treatment, as we have it in the West, the efforts of an individual medical man or woman will only be as a drop in the ocean.

In case this casual little paper has helped to arouse some more interest around energetic treatment of Syphilis in pregnancy and Syphilis in general, then I shall feel that the efforts spent on it have not been quite in vain.

ANTE-NATAL WORK.

DR. M. I. BALFOUR.

Ante-natal work in India is of great importance both on account of the need for research into the causes of maternal and infant mortality and of the need for the better treatment of women in childbirth.

Ante-natal work is already being done in India but its real purpose is sometimes misunderstood or at least its full purpose is not realised.

In some places one sees a Health Visitor who encourages pregnant women to come to her centre, advises them about food, exercise, etc., tells them what preparation to make for confinement and explains the advantages of a trained midwife. If the case seems abnormal she sends her to a doctor. This method is excellent so far as it goes.

In other places a doctor attends the centre once or twice a week to hold an 'ante-natal clinic'. Too often one finds that the doctor is a newly qualified graduate with little experience of obstetrics. The mothers often expect treatment for gynecological trouble and bring their babies too for advice. Hence the numbers are large and the doctor can perhaps only give an average of one or two minutes to each case. Little real ante-natal work can be done under these circumstances.

The ideal ante-natal clinic has 3 essentials:—

- (1) The doctor in charge should be experienced in obstetrics.
- (2) It should be understood the purpose of the clinic is to detect and treat diseases due to pregnancy or conditions likely to complicate labour. If other conditions are treated there should be another doctor for the purpose or an experienced nurse, so that the head of the clinic can give 10 or 15 minutes to each new case of pregnancy and to necessary cases among the old patients.
- (3) The clinic should be in touch with some well equipped hospital where cases can be sent under charge of a nurse for special examination. It must be realised that the experienced obstetrician is not a pathologist, a dentist or cardiac expert.

Let us illustrate this by looking at a few cases seen at an English ante-natal clinic.

No. 1.—two para, seven months pregnant feels well and has no complaint. But her history shews that her first labour was

prolonged and the child died shortly after birth. Examination shews she has slight pelvic contraction. There is still ample room for the child's head to pass through the pelvis and she is told to come up for weekly examinations. As soon as it appears the head is getting too large to pass the pelvis labour will be induced probably without any harm to the child.

No. 2.—four para, is found to have pyorrhœa. She is sent to the dentist to have her teeth attended to as the septic focus in her mouth might lead to sepsis at the time of labour.

No. 3.—one para, suffers from headaches and swelled feet. Her urine is found to be loaded with albumen and she is sent to hospital for treatment.

No. 4.—four para, 8 months pregnant is found to have a transverse presentation. It is easily remedied by external manipulation and a binder applied to keep the child in the new position.

No. 5.—has vaginal discharge. A specimen is sent to the pathological department for examination. If it proves to be harmful special treatment will be given and special precautions will be taken at the time of labour.

No. 6.—one para, is a breech presentation. The patient is told there is danger to the child and she is advised to come into hospital for labour.

It should be noted that each one of these cases, except perhaps No. 3, had only come to book her name for attendance at the time of labour and did not consider herself in any way in need of treatment. The facts given about the various conditions were only elicited by means of a slow and patient investigation. All the mothers will probably make a good recovery and have living children. But had they not been treated, several would probably at least have had troublesome illnesses and some of the children would have been feeble or stillborn.

The chief difficulty in the way of efficient ante-natal treatment is the same in England and in India, though greater in degree in India,—namely, ignorance on the part of the public and even on the part of the medical profession, of its need. Yet the nature of the work is such that it soon proves popular among mothers who greatly appreciate the interest shewn in their condition, provided care is taken (especially in India) not to alarm them by too energetic examinations.

Schemes need to be carefully thought out and administered and all the workers in the clinic should be taught to realise the importance of detail.

THE NEED FOR ANTE-NATAL WORK; A METHOD FOR ORGANISING IT.

DR. M. V. WEBB, W.M.S., AGRA.

Five years in the Maternity Hospital at Agra with between 500 and 600 cases a year have impressed on my mind the great need for ante-natal work. Over and over again women come to us, it may be in the last stages of anæmia of pregnancy, or it may be after several days in labour with contracted pelvis or mal-presentations only to die in Hospital. If we had some agency to find them out during pregnancy by visiting their homes how much suffering might be saved. Here in Hospital we have the preparation for such work and it must be the same in other places throughout India. A well trained Health Visitor working in connection with a Maternity Hospital could do absorbingly interesting and most useful work. My idea would be that three afternoons a week should be spent by her in the lying in wards making friends with the patients, their children, their visitors. On an average she would have three chats with every patient, not the hurried remarks a busy doctor can make on her round, but a friendly conversation. She would then register the address for future visiting in the women's home, where she would be welcomed as a friend. She should be able to visit all the Hospital babies in the city during their first year of life at least four times, never a morning would be spent in visiting that she did not see some pregnant woman to whom she could give advice. Letters could be given by her to those needing medicine or hospital treatment; if the woman lived near enough to come to the Maternity Hospital itself she would be sure of a welcome. Otherwise she might attend one of the several women's dispensaries. The Health Visitor could take with her one of the pupil midwives and teach those who will not get the advantage of Health School training a little of the School methods, how to look out for anything wrong during pregnancy and with the baby. Pupils could do a month at a time of such duty; it would not be the least valuable part of their training. Cases which were seen and advised to come to hospital could be followed up if they had not arrived.

Two mornings a week should be spent in the out-door department making friends with every pregnant woman and every mother of a baby, examining, advising and showing students how to do the same. The other four mornings should be devoted to visiting in different parts of the city.

THE DAI

DR. P. C. SEN, DACCA.

In the Indigenous Dai Worth Training ?

There seems to be reasonable ground for the assumption that the efforts hitherto made by suitable agencies under favourable conditions for training indigenous dais, have not been altogether wasted. Limitless patience, and tact, with reasonable facilities for instruction have succeeded in the case of 'dais' under observation, in making at least one out of five, fairly innocuous, and to a limited extent tolerably useful. What to do with the rest is a more formidable problem, and at the moment does not seem susceptible of an immediate solution. The man in the street whose interests are most vitally concerned, sees nothing particularly wrong in the association of lethargy, ignorance, filth, and conceit with the activities of the average 'dai' and this attitude has in a very substantial manner hampered the efforts of the pioneer workers engaged in improving the conditions of child-birth in India. Behind the Purdah, any departure from timehonoured methods conjures up visions of perils as terrible as may be caused by rocks lurking under the surface of uncharted seas. Again, the rituals of safe midwifery involve some monetary outlay not, possibly, within the normal capacity of the average worker. Further, the art still remains to be evolved for getting the bulk of the dais interested in modern methods of work, and, what is more serious, facilities may be a long time in coming for instruction of all the willing dais distributed over unmanageably wide areas. It seems therefore not improbable that if the desi dai is to disappear at all, she will take her own time in doing so, and so long as she is there, our duty seems to be clear to try to influence her where we may, unless it is found that a particular individual happens to be hopelessly dense, incorrigible, or determined to refuse new impressions.

2.—What are the results of the efforts of the past 20 years ?

The Victoria Memorial Scholarships Fund, since its inauguration in 1903, has steadily kept in view the provision of facilities for training indigenous 'dais'. Throughout India, centres have sprung up under the auspices of the Fund and at the instance of provincial chief medical administration officers, medical missions, and voluntary workers, and though the ground traversed has not been as extensive as might be considered urgently necessary, still the results up to date cannot be regarded as discouraging, considering the difficulties of the situation and the handicap inherent in the materials dealt with. From among a group of dais in the city of Dacca to whom teaching facilities

have been available for nearly the last 5 years, a wholesome dread of needless internal manipulations, a tendency to arrive at a correct diagnosis of the position of the child, and to refer each case with abnormal presentation to the centre doctors, observance of the remembered rules of asepsis, seem to be refreshingly in evidence. I do not think the price paid for reclamation is too dear, but the great need of the moment seems to be to continue adequate vigilance over their work.

Not only vigilance, but it seems the deserving dai requires support. How sore must be the temptation, for instance, to the woman to avoid the stigma of idiocy, when she is frantically urged to tear out the placenta when it may be a few minutes late in following the child, while frenzied friends are attempting to stand on the abdomen of the patient, with dust and filth on their feet, to prevent the placenta from rising into the chest! If the dai's results are not better than what they are, it is only fair to recognise that she is up against serious odds and it may frequently be very difficult to understand her point of view.

3.—*How can the Training be Accomplished?*

The question may be approached from the following aspects :—

- (1) Standard of Teaching.
- (2) Methods of Recruitment of Pupils.
- (3) Instructional Facilities.

Teaching the art of midwifery is always a very difficult business, and for successful results a certain amount of natural aptitude is essential in both the teacher and the taught. There is always an advantage in having women teachers. Assuming that theoretical instruction is confined to lines laid down in Dr. Balfour and Dr. Brown's books, women teachers can have more opportunities for demonstrating the "technique" of treatment under real conditions. As unfortunately mechanical memory of the details of the "rituals," rather than a clear conception of the principles underlying them, is what we have got to be content with in a great majority of cases at present, the importance of a woman teacher who can also act as a regular supervisor, comes in.

The inauguration of a teaching centre does not necessarily mean that the desi dais living in the neighbourhood will join the classes forthwith. Their professional outlook is limited, but professional vanity recognises no barriers. There will be found 'dais' who have the conviction that what they do not know about midwifery is not worth knowing. To inspire these 'dais' with enthusiasm for modern methods, some restlessness comparable to the craze for the "latest Paris fashion", is no light task. In

towns with hospitals accommodating maternity cases, a certain amount of work may be profitably undertaken at the beginning of the course, in the hospital. As Dr. Jane Turnbull emphasised in her report to the Board of Education in England, detailed instruction can be given much more easily in a hospital, and a standard method set, which can be kept in view under very different conditions in the patients' homes. It is only by subsequent outside work that the quality of adaptability can be developed. Where no hospital with maternity beds is in existence, it is important that small maternity homes should be established, not only in the immediate interest of the mothers, but for purposes of teaching as well. In view of the importance of maintenance of close touch with the pupils, it will be necessary to limit the number of pupils allotted to each teacher. In rural areas, the organization of teaching centres on a sufficiently board, stable, and effective basis, is a more difficult task. In Bengal, in addition to the work undertaken by the Mission hospitals, the District Boards are operating 26, and the Central Co-operative Antimalarial Society 11 centres. The Bengal Health Association (a voluntary institution) has also opened number of centres. Looked at from the stand point of provincial needs, unless progress is accelerated, it will take a long time to obtain appreciably improved returns in respect of work done by dais. On the other hand it is not clear where the money and the workers necessary are to come from? Take for instance, a district in Bengal. Dacca covers an area of 2,723 square miles, where over 90,000 births and 5,000 still-births are registered every year, and probably anything between 5 to 10,000 births escape registration. Assuming 400 births to take place in an area approximating 10 square miles, and that there about 16 dais in this area, this would mean about the maximum amount of work which could be taken up by one teacher supervisor. It would therefore be necessary to find over 270 teacher supervisors for one district alone. Far from replacing the existing dais, we are not in a position even to give them a reasonable chance for bettering themselves.

What improvements in the present system of training are necessary?

A real incentive to efforts for improvements on the part of the dai would be afforded if anything approaching a living wage could be ensured by the practice of her profession. A substantial percentage of 'dais' in rural Bengal divide their time between this and other trades. Mere attendance in classes for theoretical instruction as a result of promptings of either need or greed for the prescribed two or four anna bits, is hardly likely to prove useful. For training to be effective, and for results of training to be appreciable, use of midwifery outfits is essential.

And in only a very microscopic percentage of cases in the price of an outfit likely to be realised. On the other hand it is extremely doubtful if the State and the District Board are now in a position to find the cost of outfits for the better part of one lakh of cases a year. If the main objective to be kept in view in training be prevention or reduction of risks from (i) puerperal sepsis, (ii) toxæmias of pregnancy, (iii) hæmorrhage complicating child birth, (iv) asphyxiation or infection of the child, then more theoretical training of ill paid 'dais,' unprovided with necessary materials and facilities for obtaining competent medical aid when necessary, can hardly help forward the cause of Maternity and Child Welfare. Bad as the position already is, the demands of midwifery call for better class women than can at present be found in the ranks of the professional dai. For this, we have to look for recruits from the poorer rungs of the middle classes. In order to popularise recruitment, it would probably be necessary to change the name of the midwife, and to improve her status in society. Already this idea has been partially accepted in a voluntary hospital for women in Calcutta. To develop the idea, every district headquarters will require to have a womens' hospital where training can be arranged for for at least 20 to 25 pupils at a time. The spirit of social service seems to be abroad, and an appeal for recruits when suitable facilities for training and employment are forthcoming, is likely to be responded to in the near future. The trained pupils turned out from one district hospital can in 12 or 15 years' time take up the work of the teacher-supervisors over the entire district. These teacher-supervisors in a sub-division will require an officer to superintend their work, under instructions from the Civil Surgeon, and the District Health Officer. Public opinion must be sufficiently roused to secure part of the expenditure for the full scheme to come out of the revenues of the state, the rest being raised by district taxation. Taxes mean hardship, but they also mean in this instance, the saving of the lives of 66 per cent of the lakhs of helpless mothers and infants now being pitilessly sacrificed in India every year.

IS THE INDIGENOUS DAI WORTH TRAINING ?

MISS K. M. BOSE, ASRAPUR, PUNJAB.

In my opinion drawn from 8 years experience she is well worth training, for the following reasons:—

1. Unless the indigenous Dai is trained I see no other way of supplying the vast needs of the country, containing as it does over 700,000 villages.

It is impossible to believe that at any reasonable period of time these villages will be supplied with even a qualified woman for say, a group of 3 villages, so we must do our utmost to mould the raw material into at least a worker who will do no harm, and will diagnose conditions in time to get for the poor sufferer some better assistance. This has been in my experience one of the most helpful features of our dai work.

2. The village dai has the confidence of her patients, and can often get them to do what an outsider, however well qualified professionally, fails to effect. The indigenous dai is an essential part of the community which must be considered to be an expanded family in which every member, however menial, has a share. So it happens that the dai whose family has been an integral part of the village unit, carries the goodwill of the village, and is trusted to do the best for the patient, as an outsider would not have been. It has been amazing to see how far this trust, so often sadly misplaced, is carried, and when some extraordinary malpractice has resulted in the death of the mother and infant, how the villagers beg that the dai should not be reported, as she had done the best according to her lights. This good will and trust are features which we may well use, and they are some of our greatest assets.

3. Economy is another great reason; for the village people are poor, and cannot afford to pay the fees of an outside, fully qualified, dai. It is difficult to conceive that there will be a time, when the Indian State will be able to provide the finances for a system of free aid to every one of its thousands of villages, though we ought to look forward to and aim for a better qualified woman to assist the village dai in case of abnormal labours. As labours are usually and happily normal, the indigenous Dai, if taught to keep hands off, can manage most of the village labours. Out of 500 cases attended by our indigenous Dais, in about 25-30 villages annually we have not had to assist in more than 8-10 cases on the average. To some of these cases, we have been sent for, but as a rule they have been brought in to Hospital.

4. Results that we might expect from training the indigenous dai from my personal experience.

(a) Surgical cleanliness—in the treatment of women and children: we have found a great advance on these lines.

(b) Also a real understanding of village life and conditions, so that the supervisor should be a helpful go-between among the parties settling difficulties and being wisely helpful to the patients as well as to the dai.

(c) A real understanding of what are essentials and what are non-essentials, in obstetric practice, among a class of people who view every innovation with mistrust and hostility. It does not answer to expect every dai to carry out the details of Hospital practice, as this would be an impossibility in the houses, and would paralyse her, if this was insisted on. There is something in indigenous practises which can be expanded and utilized. Principles should be taught, also the use of ordinary utensils and bed clothes, when properly cleansed, and we have had no septic fevers among women, or tetanus among children for some four years. Hæmorrhages too are controlled, instead of being thought to be a cleansing process. They have brought into hospital in time, placenta prævia, transverse presentation, and mal-formations, and uterine inertia. The fact is that these women have had extensive practise, and when they are taught the theory of normal and abnormal labour intelligently they are able to relate practise and experience to it in a way the other trained midwives are unable to do without years of experience. And the indigenous dai is a cheerful soul, hard working and respectful to her clients, which is also helpful in her practise. True there is a darker side to the picture, of some who have never learned and will never learn cleanliness, but on the whole, I consider these are in the minority.

5. How to make the best of the indigenous dai :—

(a) Supervision is essential, also a sympathetic understanding of the dai's position and condition.

The greatest need is for ante-natal observation, as most of the cases which are fatal are due to diseases and abnormalities not being diagnosed in time, and this is what the indigenous dai living among her clients, as closely as she does, can be taught.

But the rearing of young infants is a subject which I find is her weakest point, and how to help her, we have not yet solved, as the mothers are against her on this point.

THE DAI.

DR. D. V. KELKAR, SATARA, BOMBAY.

I.—Is the Country Dai Necessary?

Whenever we set ourselves to think of ways and means to improve popular methods of mother craft, and maternity welfare in this vast continent of India, we cannot afford to start with a clean slate. There is a settled background to these problems, and the figure provisionally challenging attention there is the country dai. All maternity questions in rural India are inseparably connected with the question of rural life. Well over 95% of the rural population are steeped in ignorance and superstition, and ingrained conservatism in out-look and habit presents an insuperable resistance to the inroads of science and approved methods of maternity work. In fact, hygiene is unknown all over the length and breadth of the vast country side. The country dai, therefore, is an institution in the realm of maternity care to which rural society clings with all the force of which ignorant conservatism is capable. It is not easy, therefore, from this as well as from the economic point of view, which again is not quite negligible among rural population, to discard or replace the dai. We must take her therefore, as a constant quantity in any solution we may think out for the Indian maternity problem. We cannot afford to ignore her. On the contrary I would urge the necessity and expediency of improving her and including her in every comprehensive scheme. Much can surely be gained by training the whole class to new ways of treating labour cases.

Nor is the improvement of the dai impossible.

Side by side with the movement of training the dais must be run a movement for creating among the populace a desire for the employment of dais trained in this manner, and weaning the masses from the insanitary customs and unwholesome notions current in their midst on the subject of maternity care and infant welfare. In the first place, efforts must be made to *raise the status* of the dais. At present, the dai is a sort of jack of all trades in the confinement chamber. She is a doctor, an accoucheur, an attendant, a care-taker, a washer woman and every other conceivable thing to the mother and infant. The hand which cow-dungs the floor or removes the chamber pot is applied without an intermediate lotion or an antiseptic wash to any susceptible part of the mother's or the infant's skin. The vital attentions that the mother requires are neglected as a result. It should not as a rule, be made to do duties other than those strictly pertaining to the confinement. The usual method accounts to a larger extent than we care to contemplate for the appalling deaths at present in evidence among infants and

women. Efforts must be made to bring about a clear division of labour, and the dai must be relieved of all the odds and ends of menial duties, and made to attend to maternity care alone. To the bringing about of this consummation the training of the dai should contribute a good deal, as a trained dai would naturally dislike doing the menial tasks custom and tradition have assigned to her. I am thus brought back to the point from which I started. What is required is that the dais must be made to undergo a course of training, in which they will be taught the broad principles of hygiene, aseptic handling of patients, the broad theories and practise of the normal process of labour and the broad principles showing the way in, and lines on which, nature requires to be assisted in those matters by external agencies. This training of the dais and corresponding education of public opinion in elementary hygiene and maternity care will assist each other in replacing the crude methods which rule the confinement rooms in rural areas at the present day. I therefore, beg to answer in the affirmative the question: 'Is the country Dai useful'?

II.—Results in the last 25 years.

A survey of the present in continuation with the immediate past is always necessary before any scheme is laid for the future. But in this case, it is very difficult in rural areas, thanks to the defective registration of births, deaths and the causes of deaths, especially among the newly born, to collect statistics such as can be relied upon with certainty. It can, however, be roundly asserted without fear of contradiction that the ignorance and unclean habits of the dai are responsible really for much of the harm done in these matters. The dai's is a lot to be pitied more than ridiculed. For after all is said and done, the fact remains that she has never been taught the intrinsic value of cleanliness, nor could she afford to maintain clean habits and wear clean garments even if she would, regard being had to the fact that the dais, along with the society for which they function, have come to regard her ministrations in maternity affairs as only a subsidiary profession to be followed during leisure hours to eke out a none too comfortable income on which she and a host of dependants are forced to live. She has in most cases to do several other absolutely unconnected and undignified jobs to make a living. Nor can the factors of insanitary dwellings and habits of the people, and the superstition and poverty among them, be neglected when we apportion to the respective causes the responsibility for the appalling death-rate among women and babies which we all deplore. We cannot afford to acquit them of the dirtiness of the clothing, the long absence of baths, the habit of sleeping with heads muffled under a blanket and other such habits which have clung to them for ages as a result of illiteracy and poverty.

Conditions in the recently started maternity homes and welfare centres on the contrary are such as to give a certain measure of encouragement to the friends of the movement. Apart from the actual good work they do and the comfort they give to the patients and the relief to the anxious relatives, they are fast becoming the centres of undoubted educative value to the areas for which they cater. Within my personal experience I have never come across a single case in which a woman patient discharged from a maternity home will not through life stick to the new methods of maternity treatment of which she had experience during her stay in the hospital. That life teaches her the superiority of approved methods over the old and of the trained over the untrained dai. Every woman treated at a maternity home means a house or a whole family weaned from crude notions and insanitary labour habits. As to the statistics, the death-rate among the labour cases occurring in a maternity home is almost nil as compared with the appalling rate prevailing outside. By the way it will not be out of place for me here to express a wish for improving or more vigorously enforcing, the system of registration of births and deaths. Very often stillbirths are not reported nor the precise cause of the death of an infant. It is certainly not a desirable state of things.

III.—How to give Training in Villages and in Towns.

(a) In towns:—To be able to do this it is necessary to start with a few maternity and infant welfare centres. In every town with a population of ten thousand souls, a welfare centre should be started. In the Satara District there are not more than two welfare centres. Subject to these exceptions no Taluka place although it possesses on an average a population of from six thousand to eight thousand, offer any aid in mother craft and child welfare. In such towns, therefore the best way to utilise the dai is to induce her to regularly attend and receive training for a stated period at a Government Dispensary, or at the dispensary of a philanthropically minded doctor on a modest scholarship by way of maintenance. A doctor of the kind described may be found in such a locality, and this work can be assigned as a matter of dignity to him and profit to the movement. A dai undergoing such a course will easily gain sufficient insight into the first aid methods of midwifery in say about six months' time. In one year's time 4 to 6 such dais can be turned out, and should be allowed to perform their duties in their localities after passing. Each of them should, after this period of training, be equipped with an outfit costing not more than Rs. 10 each. These trained mid-wives will be of immense benefit to the town area and also to the country side round about. If these measures succeed in raising a decent batch of country dais in a couple of years, as a further step an attempt should be made to pick up one or two from the lot cleverer than

the rest, and depute them to a centre where they can be made to undergo a short additional course of 12 months. These should be offered Rs. 15 p.m. while under training and each should be given a box of material worth Rs. 20 by way of attraction or reward. Thus in the course of 4 years two highly trained and 12 ordinarily trained midwives would become available in a town with a population of ten thousand. If such a modest beginning is made in every big town in all the districts one after another, simultaneously or in groups, I feel sure that within a course of ten years all the districts would come to possess a class of persons qualified to treat maternity cases in a manner far superior to the present one current in rural India. When once the dai so trained gets accustomed to new methods, she will decline duties which do not come within the proper scope of her function as a nurse, and the duties of washing the clothes and removing the excreta of the patients, etc., will ultimately be relegated to an altogether different class of servants. Nor will the public like to see the trained dai receive disgrace by the menial tasks at present performed by the dai who is not really different to the class of servants who should properly do this.

Now the main question of financing this scheme remains to be solved. In a town of ten thousand we can easily find at least 40 families able and willing to contribute not less than Rs. 4 annually. This means for that town an assured yearly minimum revenue of Rs. 160 to be expended on scholarships of Rs. 5 p.m. (each is to be enjoyed by three dais for a course of six months) and on three prize packets of Rs. 10 each to be awarded them for attending the full length of their course. After the first six months another such a batch of three will take the place of the first three dais, and the work will have to go on. Thus in two years we will have in our hypothetical town 12 dais trained at a cost of Rs. 520 which amount includes Rs. 200 contributed to the centre by the Local Board in 2 years. The cost of training thus is Rs. 40 per dai. The Rs. 10 packet will surely produce a further beneficial effect by accustoming them to sanitary methods.

Once this batch of a dozen dais is trained, a couple of them should be selected for a further 12 months' course. That is to say, according to my scheme one student becomes due for being sent up for further training every year. She should be awarded a scholarship of Rs. 15 p.m. and at the end of her 12 months' course she should be given a gift packet of maternity necessities worth about Rs. 20. That means a cost of Rs. 200 per year. As the 40 families in our hypothetical town are continuing their contributions this amount of Rs. 200 is to be met out of the third years' contribution. Over Rs. 200, a sum of Rs. 10 will have to be given the scholar, for her travelling, etc., from her home to the centre. This still leaves a balance of Rs. 50

from the year's contribution. We have to depend on the local bodies for an annual contribution of Rs. 100 to the collections made in the town amounting to Rs. 160 from 40 families. As soon as the first 6 or 12 midwives are trained they are to be asked to conduct normal cases on the lines on which they have been trained, and for every case they conduct satisfactorily they are to receive Re. 1 as a prize or solatium in addition to the usual payment charged from the patient.

The families who have been contributing Rs. 4 a year should receive a special concession, if necessary, and from these families half payment should be charged for a nurse's work. In addition to this concession the families should be induced to take advantage of the ante-natal and post-natal free examinations to be conducted in the centre. These examinations will in addition to their being useful to women in general, be extremely helpful to the dais under training. An annual or a half-yearly gathering of a mixed audience should be convened at the centre, and the district officer, in the first instance or in his absence the sub-divisional or the Taluka officer should be invited to preside. At this meeting a point should be made of widely circulating the names of the passed pupils in the local press as examples to be emulated. The centre should further issue to these passed dais certificates, recommending them to the public. On the other hand the public should be warned of the dangers usually attending the dirty methods of untrained dais. This radical innovation would cause some bitterness and ill-feeling in the beginning, but after a time organised efficiency is bound to prevail and become popular.

Again, coming to the financial aspect of the question we would require for this work a recurring cost of Rs. 260. The Local Boards may not find it difficult to provide for an annual grant of Rs. 100, for every town undertaking such a scheme. There will not be more than 10 such towns in a district on the average to begin with. From the local conditions prevailing in my district, there are not even 12 towns with a population of 10,000 each. Rs. 1,000 a year donated in this fashion for the health of women in the district will repay itself many times over by solving the problem of the appalling death-rate among the women and babies. In 10 or 12 years' time if the idea is faithfully worked out and followed, the district would not know itself.

(b) In villages :—

When the problem is tackled in this fashion in the more thickly populated towns there will be ample encouragement for pursuing the experiment further afield in the villages and remote corners. Our trained dais will grow in demand and carry on their ministrations in smaller towns and larger villages. This

process will go on till hamlets are reached by the beneficial influence of the movement. We cannot afford to lose count of the probability of trained dais being unwilling to migrate from towns to villages. There, however, much can be achieved if we divert the Local Board grants after our purpose is comparatively fulfilled in the towns, to the task of inducing trained dais to settle and carry on their work in the smaller towns and villages. It is quite obvious that this army of cheap and trained workers will not fail to change the entire outlook of the countryside on the health of the womanhood. It is a truism to say that an ounce of experience is worth tons of theory. The experience of a woman besides converting her own family, soon travels further and quicker than the agitations of hired propagandists and makes converts of the families around her. The whole population once trained to realize the superiority of the new methods will not easily submit to treatment under the old. So also the dai once trained in modern methods, and taught to reap the advantages from them in cleanliness and immunity from menial jobs, will never for a moment revert to the old condemned methods.

IV — What Improvements in the Present System are Necessary?

Regarding this branch of the question it is necessary to divide the subject into two heads:—

- 1.—Improvement in the present method of training the dais.
- 2.—Improvement in the present method of imparting knowledge to school-children in the rules of sanitation and preventive medicine.

1.—Improvement in the training of dais.

Under this head, I have only to refer to my previous remark on this question, but while on this subject I should sound a note of warning. It is no use our new dais being too theoretical or fastidious. Our present trained nurses when visiting a poor woman, ask for towels, soap, bedsheets, chairs and wash basins to be provided, which, as a rule, are not to be found in an average Indian home. Olive oil is unknown to most of our households, as also a bed-pan or an enema. Nurses, as a matter of fact, must be prepared to find adaptations and improvisations, and must not look in poor houses for things and appliances found in hospitals. This adaptability, or art of getting on with the nearest substitutes as are available, to what they would have for mother craft, are the key stones of the dai's success in rural areas. Her training would be all wasted if she is not taught to use her head and adapt her requirements to local conditions. If a little attention is paid to this matter and some care taken to coach the dai in reading and writing she would surely fulfil a sore need. I have not the least doubt that higher education in the nurse's profession is extremely to be desired, and

every step should be taken to train up and send a contingent of highly trained nurses into each district.

2.—Improvements in the methods of educating school children in sanitation, etc.

It is matter of grave concern to those interested in this work, that the progress of welfare is impeded at every stage by two foes, namely, superstition and flat ignorance of the very elements of hygiene in the masses. To combat these as well as the third cause of hindrance, viz., innate conservatism of the average citizen, there is nothing like spreading education in matters of hygiene broad-cast, and inserting popular lessons on these subjects in our elementary text books for use in the schools.

THE DAI.

MAJOR J. R. D. WEBB, C.B.E., I.M.S., MEDICAL
OFFICER OF HEALTH, SIMLA.

- (a) "*Is the time ripe for legislation to authorise the registration of practising Dais in India.*"
(b) "*What methods should be adopted to secure this.*"

(a) In dealing with the subject. "Is the time ripe for legislation to authorise the registration of practising dais in India," it will be as well to review briefly the history of midwifery in Europe and the sequence of events which occurred in England up to the time when legislation for midwives was finally established.

There is no doubt that women assisted women at their confinements from the earliest periods of the world's history, and men-priests, priest physicians, or surgeons, were only called to assist in case of dire necessity and pressing danger, which generally resolved itself into the practice of dismemberment of the foetal body. The earliest women who practised the art were those who had probably given birth to many children themselves and who had attended many relatives at child-birth. In this way they had gathered rudimentary notions of the art. A few attained some degree of skill in their art, although there was no organised teaching. In the 16th century midwifery in Europe had sunk to a very low level, and we can only lament the ignorance of previous midwives and the gross mismanagement that cases of even normal labour must have suffered. An account of the 16th century midwifery as practised in England can be seen in the *Journal of Obstetrics and Gynaecology of the British Empire* for October 1906 and September and October 1907.

In the middle of the 16th century a change began to take place. Pare introduced podalic version and Louyse Bourgeois, the famous midwife of the French Royal Family graduated as one of the first midwives in Paris. In the 17th and 18th centuries, various occurrences contributed to the introduction of men into the practise of midwifery. The forceps was invented by the Chamberlens. Scientific treatises in midwifery by physicians began to appear. Fashion, one of the most powerful influences in social habits and customs, prescribed that women should be attended by male physicians and surgeons at their confinements. More thorough teaching for midwives was made and some distinguished midwives practised the art. In the 19th century the practice of midwifery passed almost entirely, into the hands of regular male medical practitioners, the midwives as a rule retaining only attendance upon women of the poorer classes. In the latter part of the 19th century, the admission of women into the

medical profession restored some of the work among the better classes to female hands, but simultaneously came the Midwives Registration Act for the better training of midwives and for the regulating of their practice.

The earliest legislation regarding midwives in England seems to have had reference to their ecclesiastical rather than their obstetric duties, for in cases of emergency and in the absence of the priest, the midwife might be required to baptise the newborn infant. This was apparent from an ancient injunction to the clergy by the Archbishop of York and in fact, it is in this connection that the first licensing of midwives was conducted by the bishops, when an oath was taken by the midwife.

In 1604, at the Hampton Court Conference, it was decided to limit the performance of baptism to persons in religious orders, and after this date the midwives' oath was remodelled.

The next legislation dealt with the obstetric qualifications of the midwife, but it was to be long delayed.

In the earlier part of the 17th century Dr. Peter Chamberlen proposed "that some order may be settled by the State for the instruction and civil government of midwives." The State failed to respond, but Chamberlen's son tried himself to get the project carried out some 30 years later. These doctors were far in advance of their age and their attempts were futile.

During the 18th century there was no legislation for midwives, but better books for their instruction began to appear. At this time it was felt that there was a great need for some scheme of training and certifying midwives.

Many plans were started by private enterprise. The Church had ceased to license midwives, but the medical faculty had not taken upon itself the duty of doing so, consequently a large class of midwives were found in practice, some of whom it is true had received some training, but many had not, and there was no way of distinguishing the trained from the untrained.

At the beginning of the 19th century the need for legislation was urgent, but it was not given effect to until the beginning of the 20th century.

In 1803 regulations for the training and control of midwives were adopted in France, 1810 in Austria, and in Sweden and Norway, in Belgium in 1818, and in Holland in 1865.

In 1813 the British Parliament did make an attempt to pass enactments "for the examination and control of midwives making it penal for any woman to practice without a license, granted after examination," but no legislative result followed. In due time, Medical Acts were passed, but the portion relating

to midwives was dropped out of them. During the last decade of the century, however, it became plain that legislation could not be much longer delayed.

In 1892 and 1893 Select Committees of the House of Commons met and reported on the subject. At this time, the General Medical Council was strongly in favour of the passing of laws regulating the education and supervision of midwives.

In 1898 and 1899 legislative efforts were made to obtain the registration of midwives, but it was not until 1902, one hundred years after France had led the way, that England got its Midwives Registration Bill. It came into operation on the 1st of April 1903. It was not until 1915 that Scotland followed suit with its Midwives Act.

While these attempts towards legislation had been going on, the education of midwives had been carried on by the staffs of the various maternity hospitals, some of which gave certificates, of which some were based upon examinations, but it was quite possible for ignorant women to commence practising without giving, or being required to give, to the public any such assurance of capability or skill.

The obstetrical Society of London did good pioneer work in the training of midwives until the passing of the Bill in 1902. This Society granted a diploma called the "L.O.S." In 1894 a total of 2,166 women were registered as having obtained this diploma.

In England therefore, there was no control over the practice of inefficient or ignorant women until 1902.

The purpose of the 1902 Act was to secure the better training of midwives and to regulate their practice.

No woman not certified under the Act could after the 1st April 1905 use the name or title of midwife or pose as being a midwife under the Act, except under penalty of a fine not exceeding £ 5.

After the 1st April 1910 no woman was allowed to habitually or for gain attend women in child birth except under the direction of a qualified medical practitioner under the penalty of a fine not exceeding £ 10, unless she was certified under the Act.

Certification under the Act implies the fulfilment of various conditions.

This Act made provision by which an existing midwife might during 1903 or 1904 be certified, if she held a certificate from various institutions and if she had been engaged for at least one year in bona-fide practice as a midwife and bore a good character.

The Act proceeded to deal with the constitution and duties of the Central Midwives' Board with appeals from its decisions, with fees and expenses, with Midwives' Roll, with local supervision of midwives, with notification of practice, with penalties for obtaining certificates by false representation, etc. etc.

The Central Midwives' Board of England with its duties and powers for the training, examining and certifying of candidates is familiar to all.

The Central Midwives' Board has laid down certain directions to midwives regarding their persons, their instruments and their duties. The supervision of midwives is carried out by the local supervising authority. The Local Authority may employ an executive officer to see that the requirements of the Act are fulfilled, namely, to visit the midwives systematically and regularly, to inspect their homes, dresses and bag of appliances; to see that their records are properly kept; to take charge of notifications of still-births, of deaths in women or children before a medical practitioner is called in, of puerperal fevers, and of other infectious diseases, to inspect the mode of practice of the midwives, and to record all breaches of the rules, etc.

The control at the present time in the practise of midwives in England, has had a profound influence upon the whole question.

Except in a few States of the United States of America, legislation regarding the midwife is in an extremely backward condition. In general, the regulations adopted, prescribe that the midwife shall restrict her practice to normal cases, she is prohibited from performing operations and from using instruments or drugs, and in all abnormal cases she is required to call in a physician.

Since legislation has been introduced in England the standard of the midwife and her work has very greatly improved. There has been a large increase in the proportion of cases attended by midwives, this proportion now averaging between 60 and 70%. Infantile mortality has been reduced by considerably more than 50% but there is much controversy over the question of maternal mortality.

Maternal mortality is due either to sepsis, which includes puerperal fever, or other causes attendant on the birth of the infants. Dame Janet Campbell states that the statistics from 1900 and onwards show that there has been some fall in maternal death since 1900, but that this fall has not yet been very substantial. It is mainly due to a decrease in puerperal fever since 1903, a decrease which may not unreasonably be attributed largely to the passing of the Midwives' Act.

Sir Arthur Newsholme deprecates an undue measure of pessimism with regard to puerperal mortality in child bearing.

He states that a remarkable reduction of deaths from puerperal sepsis has been recorded. He says "Comparing the experience of England in 1902 with 1923, a reduction of something like 44% took place. Comparing 1904, i.e., after the Midwives' Act had begun to operate, with 1923, there was a reduction of 25%". Nevertheless he states: "that the position is still extremely unsatisfactory and that death from puerperal sepsis is preventable and ought to be rare."

Dr. Robert A. Lyster of St. Bartholomews Hospital says: "During the period 1902 to 1924, there has been no substantial reduction in the number of maternal deaths which now number some 3,000 a year, and which only represent a small fraction of the enormous damage done to the young women of the country during their confinements." He urges that further preventive measures are necessary, such as:—

1. The elimination of unregistered practitioners.
2. That midwifery and the care of the mother and child should be made essentially a public health matter, and
3. That improvement of the midwife is necessary, while Dame Janet Campbell urges the necessity for improved maternity homes and elimination of the unqualified attendants known as the handy-women.

Dr. A. F. G. Spinks of Newcastle-upon-Tyne considers that "when incompetence can be replaced by skill, unclean methods by clean ones, undue haste by patience; and when unnecessary interference is abolished altogether, then maternal mortality will be brought down to somewhere near its irreducible limits."

Doctor E. W. Hope of Liverpool says:—"An examination of the figures for every decade since 1891 shows that there is quite an encouraging reduction in England and Wales in maternal mortality."

This controversy, which now exists in England with regard to maternal mortality, and the necessity for further improving this important question cannot be used to repudiate the importance and benefits to be derived by legislative compulsion in the practice of midwifery.

I cannot claim that India as a whole has reached the standard which existed in England in the year 1902. Some may go so far as to say that the present state of midwifery in India is comparable to that which existed in England in the 18th century. Yet in Madras, the Local Government has already introduced legislation for Midwives—the Madras Midwife being comparable to some extent to the Dai of Northern India. Burma introduced legislation before Madras. Why should other Local Governments in India hesitate to introduce this most necessary step?

I consider that Local Governments in India should speedily consider the question of legislation with regard to the training of dais, their registration and practice under a definitely framed law.

In this connection, the following 4 principles should be considered :—

1. Will the indigenous dais of India come forward for training?

Many difficulties are presented in attempting to induce the indigenous dai to come forward for training. No doubt some of these can be overcome by extreme patience and tact, yet it is only by legislation that these difficulties will eventually disappear.

2. Do adequate means exist for the training of indigenous dais in India?

With the steady growth of maternity and child-welfare organisations in India, the training of dais can and is being accomplished.

The training of the indigenous dai in the rudiments of western midwifery, is one of the first steps which a newly organised maternity and child welfare institution should undertake.

3. If a maternity and child-welfare institution already exists in a town or area, can it be accurately ascertained how many of the total number of dais practising in the town are fully trained and certified and how many still remain to be trained?

This is an important point in regard to proposed legislation, and the Local Municipality or Authority should enquire what standard has been reached in the training of their indigenous dais.

The Punjab Government has taken action by instructing Municipalities to maintain lists of all dais practising in the area and that these lists should show the number of fully trained and certified dais, the number under training and the number still untrained.

4. Is it necessary to supervise the work of the trained and certified indigenous dai?

This is most necessary, because without supervision trained and certified dais revert to their old practices and consequently their training is a useless waste of time. Some supervision can be introduced without legislation, but it can only be carried out effectively by adequate legislation.

It is doubtful whether public opinion is sufficiently ripe to support a general law applicable to all dais in India. Even amongst the educated classes opinions differ.

Local Governments should however consider the question of legislation in relation to these four principles, and if in the opinion of the Local Government a Municipality or Area has reached a sufficiently adequate standard, based on these principles then that Municipality or locality should be entrusted by Government with legislation for the practice of their dais.

Details in regard to such legislation will be dealt with later.

At Simla, we have met with difficulties while inducing dais to come forward for training, yet we have now reached the stage where we attempt to check the practice of all untrained dais in the town, with 5 exceptions.

These 5 dais are women who are too old or are physically incapable of undertaking the course of training.

A thorough system of training is given at the maternity and child welfare institution, which will be dealt with later.

We have a total of 40 dais practising in the town and these are all borne on a list, and are all personally known to me.

2 are fully qualified nurse dais, 22 are fully trained and certified indigenous dais, 11 are under training and 5, already referred to above, are untrained.

We have introduced supervision over all dais practising in the town. The details of this supervision will be dealt with later.

The Simla Municipality therefore be considered to have satisfied all the four principles and in consequence I consider that it is an example in which the Local Government should have no hesitation to entrust the Municipality with legislation.

During the last 2 years, I have made great efforts to get the Simla Municipality to approach Government with request for legislation. I have failed, and can only wait until the Local Government takes the necessary action.

In concluding this portion of my paper, I consider that the time is ripe for Local Governments to legislate for the training, certification and registration of dais in those areas which can show that they have reached a sufficiently high standard on the lines indicated above.

The observations which I have made with regard to the Simla Municipality lead me to the second heading of my paper, namely :—

(b) What methods should be adopted to secure this ?

The methods should be based on the four principles already mentioned, with the financial aspect and legal considerations.

(1) How can dais be brought for training prior to legislation ?

The Local Authority should regularize birth registration by insisting on the prompt notification of every birth taking place

within its limit. One or more reliable registration clerks should be employed, depending on the size of the town or area. The duty of the registration clerk should be to follow up each birth and enquire who attended the mother before and during the confinement. At the end of each week he should prepare the official birth register and a separate list showing the serial number of each birth, corresponding with that in the birth register, the name of the dai, or other person who attended each case, her address and particulars whether or not she is a trained and certified dai. To guide him, he should have a complete list of all dais, both trained or untrained, working in his area.

This procedure takes the place of that in England, where each birth conducted, is notified to the Local Authority by the midwife herself.

The registration clerk should present the birth register and the weekly list to the Medical Officer of Health or other person appointed by the Local Authority, drawing his attention to those births which have been attended by untrained dais or which have not been attended by a dai at all. The Medical Officer of Health should address a personal letter to the relatives of each such case, pointing out the benefit to be derived by the future employment of a trained dai in preference to that of an untrained dai or no dai, and stating that he hopes the relatives will apply in future to the Maternity and Child Welfare Organisation, from which institution trained and certified dais can be obtained, who work under the direct supervision of a Lady Health Visitor and Maternity Supervisor.

The Medical Officer of Health should then pass this weekly list to the Lady Health Visitor of the area concerned, with instructions that she should carefully visit the mothers who have been attended by untrained dais or who have not been attended by a dai at all and that she should explain to them the importance of employing a trained and certified dai in future.

In carrying out this duty, the Lady Health Visitor should use the utmost tact, because she may be dealing with a mother who, for years, has employed a particularly favoured old untrained dai. The Lady Health Visitor should also be instructed to visit the home of the untrained dai, to interview her and persuade her to come to the Infant Welfare Centre for training.

Some explanation is perhaps necessary regarding those maternity cases shown as not attended by a Dai.

Such instances are comparable to the cases in England which are attended by the "handy-woman." A relative or neighbour attends the case, she cannot be classed as an untrained dai.

The Lady Health Visitor should return the weekly list to the Medical Officer of Health with her remarks.

If she has failed to induce the untrained dai to come for training, it may be necessary for the Medical Officer himself to visit the dai in her home and use persuasive methods.

If these fail, the Medical Officer of Health may decide to bring some pressure to bear on her, by writing to her employer.

Such untrained dais are frequently Ayahs, Dhobies or the Sweeper employed by respectable residents.

In writing the Medical Officer of Health should request the employer to prevent her Ayah or Dhobi from carrying out these duties, as she is unqualified to do such work, but that she can be trained for this work at the Maternity and Child Welfare Institution. This frequently has the desired effect.

This is the procedure adopted at Simla. It requires much patience and time to work and some may say that it is impracticable in a large town owing to the necessary supervision and cost of establishment. Nothing is impossible, and if necessary, it should be attempted on a small scale at first and extended as money permits. Our experience at Simla shows that it is the uneducated mothers who are more prejudiced against the employment of trained dais rather than the fathers. It is only by continued education that these prejudices will be broken down. In fact, the mothers should be educated to demand competent supervision during pregnancy.

As already stated, we know every dai practising at Simla.

In November 1926 we had six untrained dais in the town; owing to age and physical disabilities they cannot be trained and the only alternative is to wait for their disappearance by natural causes.

In November last, the registration clerk gleefully announced that untrained dai Mariam of Kaithu district had died. Her name was removed from the list of untrained dais.

The registration clerk should be a responsible man, honest, painstaking and if possible should be comparatively old man. At Simla the registration clerk is a Government pensioner and complies with all the points necessary for such a post.

It can be readily understood that with legislation this branch of the work will be simplified, but even with legislation and the necessary legal authority over dais, it will be necessary to have some system, operated on the above lines.

(2) *Do adequate means for training dais exist, if not, what means should be adopted for this purpose?*

The training of indigenous dais should be conducted at a maternity and Child Welfare Institution. There should be a suitable building with residential quarters, a lecture hall, an

ante-natal examination room and a clinic room with bath-rooms attached.

The training should be entrusted to a Lady Health Visitor who should be a fully qualified Health Visitor and Midwife.

She should conduct the training in the local vernacular and must have not only a capacity for teaching, but also ability to control women of this class.

Residential quarters are very necessary because, if the dais can be housed on the spot, they get a much better training in the theory, and are more easily taught the practical work while attending on actual cases under supervision. This point is very strongly upheld by those who advocate the necessity for improved training of midwives in England at the present time.

Rules for the training of dais should be laid down by the Local Government.

These should embody the following points:—

1. The training should reach a standard whereby the dai can attend a normal maternal case.

2. A dai entering for training should be not less than 20 years of age and if possible not more than 40 years.

3. The training should be at least six months for residential dais, and one year for non-residential dais.

4. The dai should conduct at least 10 maternity cases under supervision.

5. There should be at least 100 lectures and practical demonstrations, which should take place daily if possible at the lecture hall. An intending candidate should attend at least 75% of this theoretical and practical training.

6. The lectures should be illustrated by means of models, diagrams, lantern slides, and if possible cinema pictures.

7. The practical instruction should consist of demonstrations on the living subject to be held during the ante-natal clinics, and by attendance at normal maternity cases, first to watch and to assist one of the senior trained dais of the institution.

8. Instruction in the after-care of the baby to include the bathing of the infant, its clothing, diet, etc. etc., should be given.

9. The essential points to impress on a dai under training are:—The necessity for cleanliness to include the proper sterilization of equipment. The palpation of a normal case, and the necessity for calling a Doctor when she is in any kind of difficulty.

A recognised Central Midwives Board already exists in the Punjab which has framed rules for the training of indigenous

dais similar to the outline given above, also rules for their examination and for their subsequent supervision.

Unfortunately all these rules and regulations have not got the force of law behind them, and therefore cannot be used to prevent untrained dais from practising within Municipal limits in the Punjab.

When possible, some of the residential quarters at the maternity and Child Welfare Institution should be reserved for a nucleus of fully trained and certified dais.

These trained dais should act in the capacity of training assistants and should also carry out a great part of the maternity work of the town under the guidance of the Lady Health Visitor.

A register of dais under training should be kept which should show the number of lectures attended, the number of practical demonstrations and actual practical cases attended by each dai. The local authority should give a small gratuity to each dai attending. This is an inducement for them to attend regularly.

The Local Government should arrange for the examination of indigenous dais twice yearly and the dais, after completing their courses of training, should sit for their examination.

After passing the examination, each dai should be granted a certificate by the Local Government, and be given by the Local Authority, a badge or medal to wear indicating to the public that she is a fully trained and certificated dai.

If possible, and immediately after passing the examination, dais should remain resident at the Maternity and Child Welfare Institution, for a short period to ensure that they will adhere to their training. During this period they may be given recognised uniforms. Each dai should be supplied with a bag of equipment. These bags should be sterilized after use, and be kept in the main work room of the Maternity and Child Welfare Institution. They should never be kept by the dai herself in her quarters. Trained and certified dais should continue to attend a course of revision lectures and practical demonstrations to refresh their knowledge.

The Local Authority may continue to give a small grant for this purpose to induce the dais to attend.

The above procedure is that which is enforced at Simla for the training and certification of indigenous dais.

Certain minor difficulties are met with—Women may start the course, find that control is irksome and may resign.

Hill women do not readily consent to go down to the plains for the examination and recently we have experienced difficulty in this direction.

However, in addition to training dais actually within the Simla Municipal limits, several dais from the surrounding Hill states have been trained at Simla and returned to their respective States for work.

Recently, applications for training have been received from other towns in Northern India.

(3) *How can the standard of efficiency reached in the training of dais be recorded?*

It is most necessary to prepare and keep a list of all dais in the area. This list should be prepared in this manner already described above, the dais being shown under 4 headings :—

- (1) Fully trained and certified nurse-dais.
- (2) Fully trained and certified indigenous dais.
- (3) Indigenous dais under training.
- (4) Untrained dais.

This list should be carefully revised each month.

It follows, that dais under training will progress from one heading to the next after passing the examination.

Four copies of the list should be prepared. One should be sent to the Local Government through the proper channels. One should be kept by the Medical Officer of Health on behalf of the Local Authority. One should be kept by the Lady Health Visitor at the Maternity and Child Welfare Institution and one should be given to the registration clerk.

The results concerning the dais at Simla have already been dealt with.

(4) *How can an attempt at supervision of the dais of a town be effected prior to legislation?*

The Local Authority should appoint a Maternity Supervisor. She should be a fully trained and certified midwife, if possible with some years practical experience. She should work under the orders of the Lady Health Visitor in charge of the Maternity and Child Welfare Centre.

Her duty should be to supervise, as far as practicable, all maternal cases attended by the trained and certified dais and by the dais under training, during labour and up to the first 10 days after labour. She should then hand the cases over to the charge of the Lady Health Visitors.

It follows that in a large area, the appointment of more than one Maternity Supervisor will be necessary. In actual practice, even in a small town, the maternity supervisor cannot be in two places at once and at such times the Lady Health Visitors should also act in the capacity of Maternity Supervisors.

During 1926 a Maternity Supervisor was engaged to work at Simla from April to October (the season months).

By July, she found that the work was arduous, that we were exacting, and she resigned.

However the trial was sufficient to prove that a Maternity Supervisor is a very necessary appointment.

A Maternity Supervisor was engaged at Simla for the 7 season months only, with the intention that when the Government employees moved from Simla to Delhi, she would move with them and be employed in a similar capacity by the authorities at Delhi, returning to Simla at the beginning of the following season, thus keeping in touch with the mothers in both places.

Although this intention could not mature in 1926, yet a similar object was achieved by sending one senior trained nurse-dai and one trained indigenous dai, working at the Maternity and Child Welfare Institution, to Delhi with the season population.

In addition to being a means of following up mothers and infants born at Simla, and also adding a stimulus to improved ante-natal work, it is essentially an attempt to improve supervision over our maternity work, by getting to know before hand when maternity cases will be coming up to Simla and where they will reside in the town.

In spite of our efforts at Simla, we find that it is difficult and almost impossible to ensure that trained dais working in the town will allow their cases to be supervised, and much less therefore the 5 untrained dais of the town.

Legislation is the only step to ensure this.

The next method should be to establish outlying Maternity and Child Welfare Centres. A trained and certified dai should live at each such centre. She should notify her maternal cases to the Lady Health Visitor residing at the main institution as each case occurs, and if possible during the ante-natal stage.

In this way the dai's work can be supervised by the Maternity Supervisor and Lady Health Visitors. Baby clinics should be held weekly by the Lady Health Visitor at these subsidiary centres. Each such trained dai gradually establishes herself in the area, and work, which formerly went to untrained dais, will come to her.

Two such centres were established at Simla during 1926 and have worked well. This system was introduced sometime ago at Madras with success. At the time of introducing the subsidiary centres at Simla, we did not know the existing conditions in Madras.

Another method should be to house untrained dais at the institution, who are physically incapable of undergoing the training. The object is to prevent them from practising in the town. One such untrained dai is under our care at Simla and I could relate many amusing incidents connected with her, but space does not permit.

A maternity ledger should be maintained showing each maternity case attended with the name of the dai who conducted the case and whether or not it was perfectly normal.

This ledger assists in the next step, which should be the collection and distribution of fees to the dai.

Although this is not directly connected with our subject, yet it is a means of enhancing supervision.

The methods adopted at Simla consist in collecting all fees if any, for work done by the trained dais of the institution. Fees are charged to the public on a sliding scale depending on the financial status of the case. All really poor cases are attended free of charge.

The money so collected, is placed in a dais' fund and monthly payments are made on Acquittance Rolls to the dais at set charges per case irrespective of the fees, if any, which were collected for the cases attended.

The system has been successfully operated for nearly two years. It is our intention later to regulate the fees of dais practising outside the institution. This could be accomplished if legislation was introduced.

All equipment used by dais working from the institution should be strictly supervised, and if possible, similar supervision of equipment used by dais working outside the institution should be observed. The latter is very difficult and almost impossible without legislation, although an attempt can be made by making each dai buy a bag of equipment after completing her training. These bags of equipment should be sterilized regularly at the main institution by high pressure steam, or if this is impracticable, the dai should boil her equipment. Both methods of sterilization are adopted at Simla and bags of equipment are sold for Rs. 20 per bag.

Perhaps one of the most important methods of gaining supervision over the dais of a town is by the formation of a "Dais' Social Club." This method should always be introduced.

The objects of the Club should be:—

1. To bring all the dais of the town together once per month, at which time they are taught and also amused.
2. To make the dais realize their responsibility one for the other.

3. To make them fraternize together and so realize that they can be a powerful body.
4. To make them feel their responsibilities by organising their own club, *i.e.*, appointing their President, Secretary, Committee, etc.
5. To make them eventually realize the importance of protection by Government legislation.

A Dais' Social Club was introduced at Simla after I failed to induce the Municipality to approach Government and request legislation for the dais of the town.

The first meeting took place in June 1926, since when the club has met regularly each month.

All dais of the town, both trained and untrained attend.

Each meeting commences with a cinema display, followed by a lecture or informal talk. Sometimes the senior dais address the gathering numbering about 25 to 30 dais. Cinema displays are continued, a gramophone is played, the dais chat, play games, and refreshments are provided which are divided amongst those present by the president. The cost per meeting is Rs. 10.

In this way co-operation amongst the dais is being established and it is largely through this club that our Lady Health Visitors are beginning to gain the confidence of the trained dais working in the town as well as that of the untrained dais.

Prior to legislation at Madras a Nurses' and Midwives' Association was established there. We were unaware of this, when the Dai's Social Club was first introduced at Simla.

Some of the results at Simla are interesting :—

1. Between 60 to 65 per cent of all maternity cases occurring in the town are now conducted, under supervision, by trained dais or dais under training at the Maternal and Child Welfare Institution.
2. 15 per cent are conducted at the Lady Reading Hospital. These are nearly all difficult cases.
3. 5 per cent are conducted by doctors of the town, trained in western medicine, or by trained dais working in the town, and
4. 15 per cent are conducted by the untrained dais, or, are not attended by a dai at all.

In 1920, the Crude Infantile Mortality rate, which is calculated on the total number of deaths and births per year was 424 deaths per mille of births, while in 1925 it was 214 deaths per mille of births, and in 1926 it was 218 per mille of births.

This rate is still very high, yet during the last six years the rate has been halved.

This continued high rate is due to many causes such as poor housing, ignorance of mothers, poverty, climatic conditions, etc. A large number of infants die from pneumonia during the rains from undue exposure and neglect.

It is well known that boys are more highly prized in Indian families than girls owing to the dowry system, and the assumption is, that on the whole boys are well cared for, while girls are neglected, with an unusually high girl-infant mortality rate, thus producing a high total infant mortality rate.

In 1920 the maternal mortality rate has been estimated at 21 per mille of which 9 per mille were from puerperal fever and 12 per mille were due to other causes.

In 1926 the rate was 13 per mille, of which 1.5 per mille, were due to puerperal fever and 11.5 per mille were from other causes.

There has been a reduction during the past six years especially under the heading puerperal fevers.

This improvement is perhaps more apparent than real owing to inaccurate statistics in past years.

The results shown under the above headings, cannot be unreasonably attributed to Maternal and Child Welfare work which was started at Simla in 1920 and has been continued since.

(5). *Financial Considerations.*

This important heading may be divided into initial and recurring expenditure.

Expenditure will largely depend on local conditions such as the size of the area, the magnitude of the proposed activities, the price of building materials, the wages for staff, etc. etc.

Simla with its season population of 45,000 of which 37,000 are Indians, is perhaps particularly well situated for work of this nature.

Some may say that estimates based on the activities at Simla, can be no real guide to conditions elsewhere, but I venture to quote the expenditure at Simla as it may be of some assistance when considering this question. The expenditure represents that for a hill municipality with a population of 37,000 Indians. It should be borne in mind that the cost of building materials and the wages for personnel are generally greater in the hills than in the plains.

Under the heading of initial expenditure is the cost of buildings, furniture and equipment. The Maternal and Infant Welfare Organisation was commenced in 1920. The cost for the building and equipment, etc., was Rs. 24,000.

This building was situated in the lower part of the main bazaar, a somewhat unsuitable locality.

In 1924 the institution was transferred from this building to a more suitable one situated in the main bazaar.

The estimated cost of the building in which the present institution is accommodated is Rs. 20,000 and the cost for certain alterations and equipment, at the time of transfer, was Rs. 8,000.

The Countess of Reading presented the Municipality with a lecture hall, which is a fourth storey to the present building and cost Rs. 10,000.

Mr. Jehangir Madan of Madan's theatres presented the Municipality with a modern Pathe Cinema and lantern projector, the estimated cost of which is Rs. 3,000.

The initial expenditure was therefore Rs. 65,000 less the cost of the original building Rs. 24,000.

The total initial expenditure thus amounted to approximately Rs. 41,000.

The annual budget estimate for recurring expenditure amounts to Rs. 8,747 per annum. The Municipality bear the entire cost with the exception of two annual grants; Rs. 300 per annum from the Victoria Memorial Scholarship Fund to be utilized in the training of dais and Rs. 600 per annum from the Lady Chelmsford All-India League for Maternity and Child Welfare.

(6). *Legal Considerations:—*

As already suggested, the training of indigenous dais should be conducted at Maternal and Child Welfare Centres. At present some of these institutions in India are organised by Municipalities, while others are controlled by the Lady Chelmsford All-India League for Maternity and Child Welfare, the Indian Red Cross Society or private bodies.

General uniformity of control is most desirable; this does not exist at present and it is prejudicial to the work as a whole.

Legislation may take one of three forms, either that:—

1. General legislation by the Central Government for the whole of India should be introduced, regulating the licensing, practice and supervision of all midwives and dais, with an option given to Local Governments to extend the operation of the Act to such areas as the Local Governments may think fit or that—
2. Special legislation by Local Governments should be introduced, authorising particular municipalities to frame bye-laws relating to the licensing and practice of midwives and dais, or that—
3. Legislation by Local Governments should be introduced, whereby the Central Midwives' Board of the

Local Government would be entrusted by Government to frame recognised rules and regulations concerning the licensing, qualifications, practice and supervision of midwives and dais in the province, which rules and regulations would be made applicable by the Local Government to particular areas of the province, when the Local Government considered that these areas were sufficiently advanced to receive such a change!

The first method would mean a general law, and as already mentioned, it is doubtful whether public opinion is sufficiently ripe for this, apart from the great length of time it may take to introduce this kind of reform. In my opinion it would also be impracticable for the Central Government to enforce the provisions of law based on the lines of the Midwives Registration Bill of 1902 of England and Wales, by which, rules and regulations are framed by the Central Midwives Board, these being acted upon by corporations or other local authorities; because India as a whole is not ripe for such a drastic change.

The second method can be effected by an amendment to the present Municipal Acts by the addition of a clause empowering a Municipal Committee to frame bye-laws rendering licenses necessary for persons practising as midwives and dais within the limits of that Municipality. These bye-laws should contain provisions relating to qualifications, supervision, etc. etc., and attached is a proposed draft of such bye-laws.

Should the Maternity and Child Welfare Centre in a Municipality be organised and operated by a League or private body, municipalities may, in framing such bye-laws take into consideration the work which may be expected of such institutions while enforcing the municipal bye-laws.

This form of legislation would I believe be practicable at the present time, and be the least open to objection by public opinion, because, municipalities in framing their own bye-laws could take in to consideration local circumstances.

The third method suggested would undoubtedly be the best for those provinces where Maternity and Child Welfare work was entirely Government controlled, and where a Central Midwives Board recognised by Governments already existed.

I believe it is the intention of the Punjab Government to take over, before long, all maternity and child welfare organisations in the Province and as already explained a recognised Punjab Central Midwives' Board exists.

In consequence, legislation for the Punjab would be best introduced by the third method.

I am privately informed that the Director-General of the Indian Medical Service has written to all Surgeon-Generals and

Inspector-Generals of Civil Hospitals instructing them to approach their respective Governments for the introduction of legislation for Midwives.

If the Punjab Government considered that the proposal might first be given a trial in Hill Municipalities, which are ready for such legislation, such as Simla, the provisions of Section 198 of the Act could be amended so as to incorporate a clause rendering licenses for midwives and dais necessary, and bye-laws could be framed by the Hill Municipalities concerned.

In this connection I append a list of suitable bye-laws which the legal adviser of the Simla Municipality has prepared in conjunction with me.

This list of bye-laws might also be helpful when considering the question of rules and regulations being framed by a Central Midwives Board of a Local Government.

Simla Midwives and Dais Bye-Law.

1. This Bye-Law may be cited as Simla *Midwives and Dais Bye-Law*.

2. It extends to the whole of the Simla Municipality and shall come into force on such date as it is confirmed by the Local Government and notified in the Local Official Gazette.

3. In these rules unless a different intention appears from the context.

(a) The expression "Committee" means the municipal committee of Simla and includes the President or Secretary of the Committee and such other officers or members thereof to whom the powers and functions of the Committee under this Bye-Law are specially delegated.

(b) The expression *dai* includes any woman who shall habitually and for gain attend women in child-birth.

(c) The expression "licensee" means any person to whom a license to practise as a *midwife* or *dai* has been granted by the Committee under this Bye-Law.

(d) The expression "Medical Officer of Health" means the Medical Officer of Health, Simla.

4. No woman shall practise as a *midwife* or *dai* within the limits of Simla Municipality except under a license granted by the Committee in this behalf.

Exception:—This rule shall not apply to a woman Doctor holding the diploma of a recognized university in India or the United Kingdom, as to her having passed the prescribed examination in midwifery, or to a woman possessing a certificate granted by an institution approved by the Medical Office of Health.

5. A license to practise as a *midwife* or *dai* shall not be granted unless the applicant satisfies the Medical Officer of Health that she is in a fit state of health, is properly trained, and bears a good moral character.

6. Application for a license to practice as a *midwife* or *dai* may be made to the Secretary of the Committee with a certificate of fitness granted by the Medical Officer of Health, together with evidence of training and good character, which shall be laid before a meeting of the Committee for disposal. The order passed by the Committee accepting or rejecting the application shall be final.

Every license granted under rule 6 shall be subject to the following conditions :—

(1) The licensee shall keep herself scrupulously clean and neatly dressed ;

(2) When attending a patient, the licensee must wear clean clothes of washable material and must not go to attend another case without changing her clothes and cleansing and disinfecting her hands and arms ;

(3) The licensee shall carry a bag containing all the necessary appliances as prescribed by the Municipal Committee ;

(4) The licensee shall sterilize her appliances and shall wash her hands and arms with a disinfectant before attending a case ;

(5) The licensee who had been in attendance on a puerperal case, or a case suffering from any supposed or real infectious illness, shall disinfect herself and her appliances, to the satisfaction of the Medical Officer of Health, before going to another labour ;

(6) The licensee shall notify within 48 hours all births to the Medical Officer of Health through the Maternity Supervisor (Lady Health Visitor) giving the name and address of the parents and sex of the child with name (if any) ;

(7) In case of still-birth or the death of mother or child, and in every case in which dangerous complications have arisen in the mother or the child, the licensee shall at once report the condition to the Maternity Supervisor (Lady Health Visitor) who will in turn report to the Medical Officer of Health.

(8) The licensee shall not follow any occupation which is likely to be the source of infection or danger to the mother or child she is attending.

(9) The licensee shall not refuse to attend a case without a reasonable cause and shall not demand a fee higher than that prescribed by the Committee in this behalf.

(10) The licensee shall comply with all orders passed by the Medical Officer of Health and shall obey all the instructions

which he may issue from time to time as to attendance on a patient in child-birth and the treatment and care of the child.

8. A licensee may be suspended from practice by the Medical Officer of Health for malpractice, negligence, or misconduct, or if such suspension appears to him to be necessary in order to prevent the spread of infection.

9. A license granted under these rules may be revoked by the Committee for breach of any of the conditions under which it is granted or for any other reasonable cause.

10. Whoever commits or abets the commission of an offence under rule 4-7 and 8 of the bye-law shall be punishable with a fine which may extend to Rs. 50, and in case of a continuing breach, with a fine which may extend to Rs. 5 for every day after the first during which the breach continues.

In conclusion, it is well known that much harm is done in India to both mother and infant by the ignorance of untrained dais and I feel that if registration for the practice of dais could be enforced much benefit would result in the well-being of the Indian babe and its mother at the time of confinement, and in their subsequent health.

It is of interest to note, that while the budget was under consideration in the Legislative Assembly during January and February 1926, every member who spoke, and certainly all members who opposed Government, commented very severely on the callousness with which the Government of India view the enormous infantile mortality rate in India.

It was the one and only aspect of the Indian Government's work which was adversely criticised seriously.

Some members suggested that persuasive methods were better than legislation, but most of the opposition held that it was criminal on the part of Government to expect ignorant people, such as the labour classes in Bombay, to understand what was best for them. They held very strongly that some form of compulsion was necessary.

I endorse this by adding that the limit of persuasion has been reached at Simla and compulsion by legislation is imperative for the future advance of the work.

If while dealing with this subject I have trespassed within the province of others reading papers at this Conference, I have done so only to represent fully the many points involved in such an important question, for after all the maternity service of any country is one of the most essential national services, and it is based on Nature's laws.

Nature's one great object being to carry on the race, all the laws that she has made are with this idea; then why not assist Nature?

**IN THE TIME RIPE FOR LEGISLATION TO AUTHORIZE
THE REGISTRATION OF PRACTISING DAIS ?**

MISS R. PIGGOTT, SECRETARY, DAIS IMPROVEMENT
SCHEME, HYDERABAD, SIND.

The answer to this will depend on the condition of the dais in the locality. Where dais have been, are being, and will be trained it might be beneficial to apply the registration, beginning with the big towns.

As I am best acquainted with Sind in general and Hyderabad in particular, I think the time has arrived for the registration of our dais in Hyderabad city, where eighty six per cent of the practising dais are trained, certificated, and regularly supervised. Surely these women ought to have some recognition when they have taken the trouble to improve themselves.

There is a certain set of women called Jatianies, who offer to carry on all the household duties and manage the confinement in return for the payment of a few annas. This appears to be a highly dangerous class (according to the results one sees). Incalculable harm is done by these ignorant women who have not even the claim of hereditary training. How are they to be restrained unless and until registration in force ?

Registration would serve as a protection to the patients who would then be emboldened to refuse the attentions of these dangerous women.

What Methods Should be Adopted to Secure this ?

To begin with I would suggest that Municipalities be authorized to register the dais of any town having at least fifty per cent of its dais trained. This would give a standing to the trained women and serve as an urge to the untrained to improve themselves.

None but registered women should be appointed to serve in public institutions.

Method of Registration—

1. That each trained dai, on producing her certificate, be given a card of registration.
2. That a list of the registered dais be published from time to time in the local papers, and that lists of the trained dais be posted in such public places as the Municipal Office, the Police Thanas, etc.

What I think is needed now is for the dais to get a move on which I feel sure registration will do. I might add that when I applied to our Municipality here about the registration of the local dais, six years ago, the matter was lost by three votes only, as it was thought that the other dais would be seriously affected and unable to practice. Since that day there is a change of view and it would not be impossible to do something now.

WORK AMONG CHILDREN OF PRE-SCHOOL AND SCHOOL AGE.

MARGARET W. BHOBE, M.B.E., M.B.CH.B., DELHI.

As intimated previously, I intend dealing with only paragraphs 2 and 3 of Group E. In answer to the question—"Is the general opinion, that such work is a necessity?" it is obvious that the general opinion of the Conference cannot be known until the subject is discussed but I should like to endeavour to answer the question why in my opinion, work amongst the children of both pre-school and school going ages is almost as necessary as infant welfare work. I have used the word "almost" advisedly, because it is a known fact that the percentage of mortality among children is highest during the first year of life and the only logical conclusion is, that work is of paramount importance during that period. If, however, merely to save life was the object of all endeavours, the work of child welfare might well be devoted almost exclusively to infancy and early childhood; but no one who has given the subject any thought at all, will but agree with me that the aim and object of all such endeavours must be so to care for the children of any nation, that they will have every chance of waging a successful battle against disease in its myriad forms, and of attaining a *robust manhood* and a fragrant *healthy womanhood*. In India, one must strive to rear a race strong in body, sane in mind, economically efficient and skilful, able to hold its own in the world, in the realms of agriculture, of industry, of science, and yet to retain its old traditions of intellectual achievement, of artistic skill, of wonderful manipulative dexterity, of poetry, of music and of devotion to things not material but spiritual. If this, then, is our high aim, it behoves us to examine every period of the lives of the children to see what particular dangers are liable to confront them, how they may be best avoided or met, and what is particularly to be striven for, in each period.

I will deal first with the Toddler stage which may be widely defined as the period between one and three years of age. I have a certain amount of diffidence in venturing to express my views here, as what experience I have, is based on work in England, rather than in this country; but I believe that what is true of conditions there, will be true to a greater or less degree in India. First of all I would stress the extreme importance of trying to establish at this age a sound and efficient digestive system, as that is undoubtedly the basis of all future physical well-being, which, all other things being equal, is the foundation of a well balanced life in which no one part either physical, mental or moral is developed at the expense of the others. To

ensure this, an adequate and suitable dietary is the first essential. Certainly in England many children of this age, especially those who have been artificially fed in infancy, are far more difficult to feed than either infants or older children and it is during this period that a life-long weak digestion usually originates. It is very common to find children who have gained weight satisfactorily during the first year of life, not only cease to gain steadily but actually to lose weight, to find dentition which has been proceeding normally become a very erratic process; and to find signs and symptoms of either acute or chronic digestive disturbance. Pertaining to matters of food, is the necessity for active vigilance against fly contamination of food, for boiling milk and water, for seeking to secure pure food stuffs and for the observance of general hygienic principles. The need for skilled observation and expert advice in matters pertaining to feeding alone, quite apart from all other conditions, will not be denied, I think, by any here present.

Passing from the Digestive to the Nervous System one is forced to observe that very often children of the toddler stage are not provided with the opportunity of enough sleep, nor are their habits sufficiently regular. As in infancy, so in this stage, innumerable new impressions are being recorded, new muscular movements are being acquired, the various sensory organs are being daily adapted to the requirements of the ever-developing life and all this expenditure of energy requires a commensurate amount of rest and the avoidance of unnecessary strain by the daily repetition at the same hour of the daily routine. The fact that in England 12% of the cases of epilepsy and all of tetany have their origin during this period is a proof of the irritability of the nervous system during this stage. To ensure a stable nervous system, with all it entails, toddlers must have about twelve hours of sleep—as a minimum, must be kept as much as possible to a clock like routine and must be protected from as much extraneous excitement as possible. How many mothers realise this?

Thirdly; this age is, in my experience, particularly liable to respiratory affections, such as common colds, bronchitis, bronchopneumonia and whooping cough. Early teaching of the importance of a careful toilet of the mouth and nose as a preventive of these evils, is very desirable; while efficient home nursing and very simple home treatment at the beginning of the above illnesses may prevent crippling complications and mitigate the attacks themselves.

I need only further mention that between the ages of one and three years, syphilis, rachitis, tuberculosis, ankylostomiasis, malaria and kala-azar may all manifest themselves and that early diagnosis and adequate treatment may prevent not merely death but a large amount of chronic ill-health, of lowered vitality with

subsequent economic wastage. But where are the toddlers to have the chance of being scientifically observed or abnormalities, especially slight ones, detected? The average mother who has not had the advantage of instruction in matters hygienic, in home nursing, in mothercraft, cannot know by instinct what is good and what is bad for the child, neither can she be expected to seek medical advice unless the child is obviously ill. At present there is only the Child Welfare Centre and in some of these, only children up to two years of age are systematically observed. Even where there is such an institution, especially among classes other than the poor, much has to be done to educate the women to avail themselves of the facilities offered by such an institution and to teach them how infinitely better prevention is than cure, in matters of health.

We pass on to the period of life between three and five or six years of age and it may be profitable to glance at the physiological changes that are taking place. The Digestive System is daily becoming more stable; more complicated foods can be digested without difficulty; but one has to bear in mind that the foundation is then being laid for the final moulding of the jaws, for the permanent teeth and that improper feeding at this period will result in the formation of narrow jaws, overcrowded teeth with a consequent predisposition to adenoids and enlarged tonsils with all the evils resulting therefrom. At this age too, the pernicious habit of eating between meals is apt to be contracted and the still more vicious one of eating such substances as mud, earth, etc., with a consequent infection of round worms, ankylostomes or other helminthes, whose reflex effects on the health are almost as injurious as the toxic, though the latter may result in death itself.

The Nervous System also is becoming more stable. All the primary and even more complicated muscular movements have been acquired and all the sense organs are actively functioning. Yet one does observe, not seldom, such nervous manifestations as twitchings, tendency to stammer and awkward uncorrelated movements. Very often these pass off when the child grows older and its attention is more completely occupied in pursuits which interest and amuse, but in all cases they indicate the necessity for a quiet well-ordered life, abundance of sleep, fresh air and easily assimilated food. At this age also, children are mingling more freely with older brothers and sisters and other children, and are thus more liable to infectious diseases. Now as these are definite illnesses and either a doctor is in attendance or the child is taken to hospital, we are not concerned for the moment with them but with unfortunate sequelae, which may develop soon after the child has ceased to be under professional observation and may thus escape detection, e.g., a heart lesion, a toxic focus in nose or throat, an otitis with or without deafness, which untreated, in small children

may even lead to deaf-mutism; nephritis, anæmia, etc.—all conditions giving rise to a state of health far below the ideal and leaving the child an easy prey to the entrance of bacteria or parasites.

Even a careful medical inspection twice and thrice a year would bring to notice many remediable ailments, such as have been mentioned above, and make all the difference to a child between good health with its glorious capacity for enjoyment of work and play and a state of existence entailing real suffering or an apathy almost more pathetic, in a child.

With the attainment of school age and attendance at school, the child is placed in a new environment which involves a radical change in the routine of life which has hitherto been followed, and imposes a whole series of new conditions and requirements to which he must adapt himself. The response of a normal child will be such that in a remarkably short time he will settle down to the new order of things, having experienced little, if any, conscious strain but not without the exhibition of certain emotions. With the highly nervous child it is often otherwise, and, unknown to him or her, the child ought to be for a time under skilled, unprejudiced observation. In some cases, all that is needed is a little time for readjustment and intelligent encouragement on the part of parent or teacher but, in others, if permanent injury is not to be done to the nervous system of the child, special arrangements and modifications have to be made.

But even in the case of apparently normal children, in regard to nervous susceptibility, the experience of countries where systematic medical inspection of schools has been undertaken for many years (as far as I know no such work has been done in India) goes to show that if the ideal of raising up a race, which shall be physically and mentally efficient and alert, is to be realised, one cannot neglect the health of the school child.

In the United Kingdom, amongst the poorer classes, a large number of cases of malnutrition come to light. Its widespread prevalence, obscurity of its origin and the insidiousness of its onset, combine to make it a problem which could not be ignored and which has led to the establishment of the school canteen. The number of cases in which the malnutrition has been traced to a previous acute illness where good nursing and nourishing food have been wanting, has led to the proposed establishment of a home nursing service, whereby fully trained nurses on the staff of the Medical Officer of Health should, under his supervision, attend cases of bronchitis, pneumonia, measles, whooping cough, ophthalmia and many other diseases.

Among the children of both poor and well-to-do classes, dental diseases are very common and dental clinics have been

established by no fewer than 150 Educational Authorities in Britain where the teeth of children and young persons up to the age of 18 years are attended to. Again, amidst both rich and poor medical inspection of school children has revealed the prevalence of much defective vision, which is a serious handicap even in comparatively minor degrees, not to mention the intolerable burden which blindness is to an individual and the heavy loss to the community. Prevention is directed to the removal of those dangers to eye and health embraced in the word insanitation, while arrangements are made for the prompt and efficient treatment of the minor diseases of the eye in the school itself. Errors of refraction are referred to an ophthalmic surgeon for correction by spectacles. In England, a child unable through defects of vision to benefit by the instruction usually given at a public elementary school becomes eligible for admission to an institution for the blind, where he or she has an opportunity of becoming proficient at a trade in the hope of becoming a self-reliant and self-supporting member of the community.

Another discovery has been the prevalence of deafness, which is a serious handicap both during school life and in after years. It deprives a child of most of the advantages to be derived from oral teaching and even when present in a slight degree, leads to dullness and inattention. When the medical inspector of schools finds on a child's entry into school any degree of deafness the case is referred to an aural specialist. Slight deafness can at times be cured by pocket handkerchief drill; removal of tonsils and adenoids may be needed—in a few instances of middle ear disease, operation may be necessary, but whatever treatment is adopted, regular persistent following up is given, to observe progress made and to watch for signs of relapse. In the case of adolescent boys and girls it is the duty of the medical inspector to give advice as to the hygiene of puberty and in the schools where the children of fairly well-to-do people attend, many parents of their own accord come to the school to ask the advice of the doctor there relative to the problems of adolescence, and gladly co-operate as far as they possibly can in the carrying out of the suggestions made.

Time prevents my going into details regarding other defects found in school children—defects of speech and stammering, affections of the heart necessitating some modifications in the matter of school games and careful consideration of the choice of a profession or occupation; disease of the lungs especially tuberculosis; minor ailments such as skin diseases, infestation with vermin and intestinal parasites. Nor can one go into details concerning the special schools which are in existence, for cripple children, for the mentally abnormal, for those suffering from tubercular bone and joint diseases and for the blind and deaf.

As I said before, I have based my remarks on experience in England and most of you are better equipped than I am, to estimate to what degree similar conditions might be expected in this country. It is, however, surely reasonable to suggest that if Educational and Health authorities in a country with a temperate climate like that of Great Britain, think that it is advisable for the good of their race to follow up the work of the child welfare centres with that of Medical Inspection of school children, it is still more advisable in this country where a tropical climate makes more severe demands on vitality, where devastating diseases such as Dysentery, Enteric, Malaria, &c., are common, and where there is still great ignorance on matters hygienic among the masses of the people. Happily much has been done in regard to infant welfare during the last few years and it is, in my opinion, only one step further and a continuation of the same work, to advocate periodic medical inspection up to, and during, school life. I admit that behind the medical school inspector or inspectress there must be the specialist—the optician, the aurist, the throat and nose surgeon, the dentist and not infrequently the psychologist or psycho-analyst but I am quite sure that in the large centres of population at least there will not be wanting men and women with the necessary qualifications and experience, whose professional sympathies and skill could be enlisted.

WORK AMONG CHILDREN.

(Pre-School & School Age)

DR. D. C. TALATI, BARODA.

“Give me the good ye know.
That I, the child may grow;
Light for the whole day long,
Food that is pure and strong;
Housing and clothing fair,
Clear water and clean air;
Teaching from day to day.
And—room—for a child to play.”

These words were put in the mouth of a slum child by Mrs. Stettson (U. S.).

1.—IS THE WORK AMONG CHILDREN OF THE TODDLER AGE
BEING ADEQUATELY UNDERTAKEN AT PRESENT.

The work of Maternity and Child Welfare in all its branches including the problem of the toddlers is still in its initial stage in India as compared with that of other civilized countries in the West. Hence it is but natural that many of us may be groping in the dark.

Under the circumstances what we can best do is to keep in mind the work in England and Wales as our ideal.

This work has been going on there since the last twenty years. We can learn much from their experience, we should be encouraged by their achievements; nay, we can even avoid errors committed by them.

In England and Wales, this work started with Infant Welfare Schemes or Schemes for prevention of Infant Mortality, at first on a voluntary basis.

They soon found out their first error. Experience showed them that the Schemes relating to Infant Welfare were not likely to be completely successful unless and until the whole period of babyhood from conception to birth—the ante-natal period as it is called, was covered. They also found that the mothers had some claims of attention for their own sake, as well as for the sake of the unborn baby, as the better the health they enjoy, the more they do to preserve and improve that health, the better it is likely to be for the unborn baby. This consideration led them to include Maternity work in the Infant Welfare Schemes.

Almost simultaneously with the Infant Welfare Schemes, the work of Medical Inspection of School Children started under the Education (Administration Provisions) Act of 1907.

After some more experience another error was detected.

The School Medical Officers expected to commence with a normal healthy child, starting school life full of vigour. But the inspection of the school children soon revealed that in many instances this was not the case. Children were found badly nourished owing to improper food, bad teeth; adenoids and a host of ailments were prevalent which might and ought to have been prevented in the pre-school age.

On the other hand health visitors who came intimately into contact with mothers and children and knew the home conditions, were fully convinced that it was wrong to suppose that if the child's mother was given help to steer the child through the first year of life, she herself could be trusted through four or five years more that must elapse before he passed into school and under Medical and trained observation.

The result of these two observations from different directions was that the toddlers' problem came into the fore-front as the latest development in Maternity and Child Welfare work.

In course of time various institutes, for the benefit of toddlers, like Day Nurseries, Nursery Schools, Crèche, Toddlers' play grounds, Children's gardens, Children's clinics, etc., came into prominence.

The object of such institutions is primarily to build up the physique and foster the mental growth of children, to place them in happy healthy surroundings where they may be fed and cleansed, and taught by homely kindly methods how to help themselves, contract good habits and respect the wishes and desires of their play fellows.

Another object is to relieve working mothers to some extent from worry, for so long as a working mother has an infant to nurse, a house to keep and a husband to feed, the toddler at home is certain to be a handicap to her domestic activities.

Whereas the clinics are established with the object of treating various defects and diseases of children, besides giving proper advice to mothers.

In India the whole problem of Maternity and Child Welfare being new, it may be that as much attention is not paid to toddlers as one would desire.

Again there being no facility of interchange of reports of various centres, it is difficult to judge how far this important work is adequately undertaken.

So far as Baroda State is concerned the following arrangements exist for the welfare of the toddlers:—

- I. Shrimati Maharani Chinnabai Maternity and Child Welfare.
- II. Creche Orphanage.
- III. Kindergarten Classes.
- IV. Children's Section in the Baroda Central Library.

I.—Shrimati Maharani Chinnabai Maternity and Child Welfare League.

Besides the usual Maternity and Infant Welfare work the League looks after the toddlers to some extent through—

- (a) the health visitor, and propaganda work.
- (b) Clinic.
- (c) Milk Depot.
- (d) Monetary relief work.

(a) Propaganda work.

Propaganda is and will always be one of our chief duties to educate the people in matters pertaining to hygiene in general and Maternity and Child Welfare in particular.

The method adopted in Baroda is as follows:—

The lady health visitor, when she goes on her rounds collects the ladies of the locality in a suitable house in the street and delivers short lectures in the form of homely talks. Among the subjects selected the following relate to the Child-hygiene:—

1. Formation of good habits.
2. The need for sufficient simple nutritious food at regular intervals.
3. The need for rest.
4. Attention to clothing.
5. Provision of bath.
6. Games and exercise.
7. Care of teeth.
8. Attention to personal carriage and the early treatment of developing deformities.
9. Self control of the body.
10. Protection from communicable diseases.

Leaflets on all these subjects have been prepared and kept ready to be distributed freely whenever occasions arise.

Other propaganda works include practical demonstrations, Magic Lantern and Cinema shows, popular lectures, etc.

Baby week with Health Exhibition is an annual function. It has its own advantage of concentrating attention of the public for a week on the Maternity and Child Welfare work and it has a great educational value. However it is not considered enough and hence in Baroda we have established a permanent Health Museum which is kept open every day from 11 a. m. to 5 p. m.

(b) Clinic.

The Clinic attached to the League Centre was till recently under a lady doctor from the American Mission who used to work voluntarily thrice a week. At present it is under a retired sub-assistant surgeon, who attends it daily.

Besides the usual function of giving advice to mothers, the clinic is established with the object of treating free of charge the defects and diseases of children and is found especially useful in the treatment of minor diseases like dental caries, discharging ears, nose and throat troubles, skin diseases, etc.

Children suffering from graver diseases and those requiring operations, are directed with a card to the State General Hospital where also treatment is given.

The staff of the clinic is separate, hence the health visitor's time is not taken up for this purpose.

(c) Milk Depôt.

It goes without saying that milk is the chief food of the toddlers. The milk supply in most of the cities and towns in India is proverbially poor both in quality and quantity.

Pure milk supply is one of the primary duties of Municipalities and the sooner they realise this fact, the better it will be for the citizens.

In order to do something in this direction, the League has opened a Milk Depôt in a convenient room in the League's building. Milk is given free or at cost price according to the condition of a family. Where the milk is given free the quantity generally given is up to two pounds according to the number of toddlers in a family.

The better plan would be to pasteurize the milk before distribution but unfortunately people—especially those who prefer to buy the milk, object to the milk being warmed to any degree of heat. Although all due care is taken to keep the milk in as hygienic a condition as possible, the people who take the milk are warned to boil the milk before using it.

(d) Monetary relief work.

The League gives to poor lying-in women help in the form of cash money, clothes or food to the extent of Rs. 20 per head. Mostly the labouring classes of women take the advantage of this facility and this help goes a great way to tide over the necessary period of unemployment. It goes without saying that a part of the money is used for feeding the toddlers also. The number of women thus helped last year was 353.

II.—Creche Orphanage.

The Creche Orphanage came into existence in 1918 during the influenza epidemic, when many children of toddlers' age found themselves orphans—both the parents having died. There were no relatives coming forward to care for them. Under the circumstances the Educational Authorities in consultation with the Health Authorities opened this Creche Orphanage.

At present, besides serving its original purpose it has become a part of the Child Welfare Scheme, although it is still under the Educational Department; but the health of the children is looked after by a School Medical Inspector belonging to the League.

Children of all ages irrespective of caste or creed are admitted as resident inmates or as day boarders. However special arrangement is made for Antyaj (belonging to the untouchable classes) children in the Antyaj Boarding House.

The age of children admitted varies from one day to 12 years, but the majority of them belong to the toddler age.

The present number of inmates is 42, out of whom 33 are boys and 9 are girls.

The staff engaged for the creche consists of a Matron who is a whole time worker and resides in the same building, 2 nurses, one clerk and 2 maid-servants; besides this as stated above the School Medical Inspector looks after the health of the children; also the Assistant Scout Master gives them lessons in simple exercises and drills.

There is also an arrangement of engaging wet 'Dais' to suckle babies according to the specific need of the time. Children over 7 years of age who have come from an agricultural area are sent to the Dhanka Boarding House at Vyara, where they get schooling and vocational education.

The expense of the staff in Baroda comes to Rs. 260 per month.

III.—Kindergarten Classes.

Kindergarten classes exist in the Baroda State since 1912. There are 20 classes in the State out of which 7 are in the Baroda city and the rest are in other cities in the State.

Besides these, there are a few private Kindergarten classes in Taluka towns.

The classes in Baroda city are attended by 705 children whose age varies from 3 to 6 years. In some of these classes arrangements have been made to feed the children during the school hours.

Specially trained teachers have been appointed for the classes. Each Kindergarten school has a small garden and a play ground.

Baroda Kindergarten classes are run on Montessori system. The time of attendance is from 11-30 A.M. to 3 P.M. Younger toddlers are conducted from home to the school and back to home by maid-servants employed for the purpose.

The course of training is fixed according to age and aptitude of a child. Each child is allowed full scope for its own initiative and to satisfy its immediate interest. The course is composed of:—

- (a) talks,
- (b) stories,
- (c) songs with or without music,
- (d) reading a few simple words,
- (e) counting from number boards,
- (f) exercises and play—free play, organised games—musical chairs, etc.,
- (g) drill,
- (h) occupation games—brick building, clay moulding, etc.,
- (i) kindergarten gifts,
- (j) nature study,
- (k) appreciations of pictures, etc.

The objects of these classes are:—

1. To make children happy and healthy,
2. To develop the power of observation,
3. To form good habits—to develop self-respect, self-confidence and discipline,
4. To remove bad habits and bad instincts by proper suggestions, and
5. To gradually and imperceptibly lead to the next stages, *viz.*, the school life.

IV.—Children's Section of the Baroda Central Library.

Perhaps the most unique feature, for the welfare and education of children of both pre-school and school age in Baroda is the Children's section in the Central Library.

The Section was organised in 1913, at the express desire of His Highness the Maharaja Sahib.

As we all know the play instinct is the most prominent characteristic of the child mind; equally strong with children is the love of colour.

In forming the Children's Room, these two Child-instincts are appealed to by keeping in the room a variety of table games, puzzle boxes, kindergarten gifts and occupations, attractive simple picture books and picture posters, card games, games with dice like Ludo, Where's the King, Railway races, Pop-in-tow go bang, War games, Stereoscopes, etc. etc.

To add to the attractiveness of the Room the walls are decorated with beautiful pictures depicting scenes from children's life and examples of the flower and animal worlds, of heroes from Indian history and of Members of Baroda Royal Family, miniature silk flags of the nations of the world, etc.

To increase further the popularity of this Room two new features have been added since 1915, namely, holding a Story Hour and giving Cinema shows.

The Room is open from 12 noon to 6 p.m. For the convenience of children there are reading tables and chairs made specially to suit their height and comfort; there is a lady librarian to help and guide the children.

2.—IS THE GENERAL OPINION THAT SUCH WORK IS A NECESSITY AND WHY?

The work for the toddlers' welfare is necessary from the two points of view, namely—

- (i) from the point of view of health, and
- (ii) from the psychological point of view.

(i) The point of view of health.

We have already mentioned the experience of health visitors on one side and that of the School Medical Officers on the other.

Now, let us consider why this work is necessary from the point of view of health.

On completion of the first year, the infant becomes a child and it is clear if the child begins this period of life with good health, he stands a good chance of remaining healthy.

The grip on life has become more firm, the ability to fight adverse conditions has been increased to a great extent; but neither the grip nor the fighting power is very great.

In these years, *i.e.*, from first to 5th birthday the risks to be run, though in some respects a mixture of those encountered in infancy and to be met with when the child ceases to be an

ex-baby and becomes a school child, are in many other respects quite distinct—in fact the ex-baby is largely a different problem from both the infant and the child of school age.

Great care is still necessary for a toddler's food to prevent him from becoming rickety, deformed or debilitated.

The need of fresh air, exercise, correct mode of breathing, cleanliness, proper clothing, &c., is quite apparent and requires no comment.

Dentition period is continued during this period at any rate up to 2 years; and great care is necessary especially when the canine teeth begin to grow.

But the greatest care is necessary to protect toddlers from what are known as communicable diseases. When an infectious disease starts in a City or a Town in India, it rapidly spreads in an epidemic form. This is due to gross ignorance of the people on one side and insufficient and inefficient public health services in many parts of India, on the other.

Again vaccination is still not compulsory in many parts of India and many children die of small-pox, or if they get over this fell disease they often become disabled, deformed or blind.

Malaria is another scourge and it does not spare children's health in India.

To take effective steps to prevent such diseases is mostly the duty of the public health departments, but at the same time a hearty and intelligent co-operation on the part of the people is also necessary; for all the communicable diseases are preventable with due care and ought to be prevented.

(ii) Psychological point of view.

Psychologically the toddler age is the most important in human life.

The first thing we notice about the mind of the child is its enormous capacity for growth and development. The child's brain—the organ most closely associated with mind—grows at a stupendous rate. This growth is brought about largely through the impact of environment.

The child's mind is absolutely fresh, his nervous system is fresh and it is the first impressions that count and the effect more or less lasts throughout life.

From 2 to 3 years of age mental associations are rapidly being formed through motor development and the basis of character is being laid.

After the age of 3 those habits which are the foundation of moral stability come more into evidence.

Again the average child generates an enormous amount of energy which is required to be turned to good account.

The child's natural tendency is to imitate, so that its strongest tendency is to do what it habitually sees others doing. For this reason those who associate the most with the child should try to be in character, disposition and action those very things what they desire the child to be.

Hence it is of the highest importance that the young mind of the child be so trained that all its latent power and capacity be developed.

The importance of intelligent care and training at this period hardly needs emphasis; and how to deal with this period calls for earnest consideration and we should educate people to grasp the need of intelligent care of this group of children.

All these considerations make it clear that if there is a necessity for infant welfare work, there is a greater necessity of the child welfare work also.

3.—WHAT IS THE RELATIONSHIP OF THIS WORK AND THAT OF THE MEDICAL INSPECTION OF SCHOOL CHILDREN.

Toddlers' welfare work is no doubt a connecting link between the baby welfare work and the work of medical inspection of school children.

Without this work the scheme of Maternity and Child Welfare would be but disjointed and incomplete, for the child who is no longer a baby and is not of school age is likely to fall between two stools.

The benefit obtained from the toddlers' work will not only help the child through the early years, but when he reaches school age, will help him to resist the risks of attacks by infectious diseases, always greatest where, as is the case in the school, numerous susceptible individuals are gathered together; and also will help him to meet the strain that education and growing always lead to.

It should be again and again pointed out that the proper time of preventing and curing certain diseases and defects is the toddler period.

For example, rickets and St. Vitus' dance resulting from insufficient nourishment, diseases of the eyes and of ears, and phthisis could often be cured if treated in time, whereas by the time the child comes to school, it is too late to do much good.

Again a cripple as a rule is made, not born and the making is a long affair.

The manufacturing process is slow and begins mostly in the pre-school period; if once begun it is quite effective if there is

no interference with machinery. It must be realised that the manufacturing process should be interrupted and such children be rescued long before they become crippled. The success of this interruption is more decisive the earlier the interruption is brought about.

Again take the example of a child whose eye begins to squint; the mother in her ignorance thinks that the child will grow out of it; but it is likely that the sight in it is suppressed and from consequent disuse either the sight does not develop or it deteriorates so by the time the child becomes of the school age, the squinting eye may be little better than blind.

The occurrence then of any serious disease or accident in the good eye will cause loss of all useful sight, thus rendering the child useless and a burden to the community.

If toddlers' work is successfully undertaken much time of the school medical officer will be saved, which he can well afford to devote to better account for the further welfare of school children. He would be relieved of the work of dealing with children, badly nourished, with stunted growth with decayed teeth, adenoids and a multiplicity of ailments that might have been or should have been prevented in pre-school age.

He could then begin with normal healthy children full of vigour, and with good habits, good manners, the spirit of discipline and sportsmanship already formed.

Also with healthy body and healthy mind the children would learn their lessons more quickly and there won't be any educational wastage.

4.—HOW CAN THE WORK OF THE LATTER BE ENCOURAGED.

In order to know how the work of the Medical inspection of school children can be encouraged, we shall have to consider the factors concerned in it, *viz* :—

1. Government and Local bodies, *i.e.*, Municipalities.
2. School Medical Officer.
3. Medical Officer of Health.
4. School Teachers.
5. Parents of School Children.
6. Voluntary Workers.
7. Facilities for Treatment.

(1) Government and Municipalities.

With few exceptions like Bombay, Baroda and some other cities, the work of Medical inspection of school children has not yet started in India.

Every where in more civilized countries this work has been considered as a duty of the State and local bodies. It is

obviously a national duty to spare no efforts to improve the general standard of health and physique of the children now at school, and so, as a result, of the next generation.

It is high time for Government to take the initiative in this matter and introduce legislation on the lines of the Education (Administrative Provisions) Act of 1907 of England and Wales.

It is one of the obligatory functions of Municipalities to establish and maintain primary schools, hence they are primarily responsible for the health of school children also. But owing to want of funds these bodies are unable to take up the work of Medical Inspection of school children unless Government will come forward to help them with liberal grants from the central treasury.

It is also an obvious duty of Government and Municipalities to provide up-to-date hygienic school buildings in sufficient number, with necessary play grounds. At present many of the schools all over India are located in hired buildings which are altogether unsuitable.

(2) School Medical Officer.

Where this work is undertaken its success depends mostly on the School Medical Officer. Besides having full professional knowledge, he must be interested in child life, and acquainted with the physiological development of the child.

He must show great sympathy and tact and win over the child's confidence.

He must try to be friendly with school teachers, he has to deal with all sorts of teachers, some of whom extend a cordial welcome, while others regard him as merely a superfluous element in school life. He should also come in contact with parents of the children as far as possible.

(3) Medical Officer of Health.

The Medical Officer of Health should take a great interest in this work. In fact in many cities in England the School Medical Officer works under the Medical Officer of Health. Even where there is no such arrangement, it is absolutely necessary to have a close co-operation between the Medical Officer of Health and the School Officer.

The Medical Officer of Health comes to know about any case of an infectious disease sooner than the School Medical Officer. For every Municipal Act in India requires that, as soon as it becomes known that an inmate of a house is suffering from an infectious disease, the Medical attendant or the head of the household shall forthwith send the information to the Medical Officer of Health.

If the patient attends school, or is a resident in a house so infected and in which there are school children, it is the duty of the Medical Officer of Health to send the information to the head teacher of the school concerned as soon as possible, so that the teacher would take necessary action in consultation with the School Medical Officer.

(4) School Teachers.

Those who have an actual experience of this work in India, know that it is a very difficult task to convince our teachers of the great importance of the work of Medical Inspection of school children. It is only to be expected with the present type of poorly paid and half educated school teachers of primary schools in India. It is, therefore, the first duty, of the School Medical Officer and all interested in the work, to teach the teachers.

Actual propaganda in favour of this work among school teachers is necessary. This can be done by publishing literature on the subject in vernacular languages and distributing them freely amongst teachers.

Also occasional lectures on the subject with or without a magic lantern will gradually convert the teachers to the very great responsibility they have.

These are being done in Baroda and the result is fairly satisfactory. The school teachers have begun to take an interest in the work, and a good number of them have joined the League as voluntary workers. It is to be noted that the work of Medical Inspection of school children in Baroda is being carried out through the Agency of the League, with the co-operation and monetary help from the State and the Municipality.

(5) Parents of School Children.

In India it is a great problem how to induce parents of school children to take a lively interest in, and to co-operate with, the work of medical inspection of school children.

Many of the parents are easily satisfied if their children pass an examination and are promoted to a higher standard.

They do not seem to care much for the physical education of their children, on the contrary some of them object to their children taking part in sports. Therefore it is our first duty to bring home to them, the importance of physical training side by side with mental training; similarly the importance of the work of medical inspection of school children has to be instilled in their minds.

It is also to be regretted that many parents do not take immediate action on the defects and diseases pointed out to them by the school medical officer.

Here again propaganda amongst parents should be our chief work. The school medical officer should invite parents at the time of examining school children. He should take every opportunity to collect parents in the school premises or any other suitable place and deliver to them, short lectures showing their share of responsibility in the work, and the benefits their children will derive from such work, if the defects and diseases pointed out to them are to be remedied in time. He should also take the opportunity to converse with the individual parents and explain to them the desirability of their help and co-operation in the welfare and education of their children.

(6) Voluntary Workers.

Where there are no school nurses employed or where they are not available in sufficient number, as is the case at present in India, the best thing to do is to organise voluntary workers who on one hand would help the School Medical Officer and on the other would induce parents to take a keen interest in the work.

They would be further helpful in following up the cases. In Baroda the majority of voluntary workers are school teachers—both males and females.

The voluntary workers will also be useful for propaganda work, and in raising subscriptions for feeding underfed and ill-nourished children or for free supply of spectacles to poor children.

(7) Facilities for Treatment.

Lastly to encourage this work, all possible facilities for free treatment of diseases and defects of the children revealed during medical inspection, should be provided.

If the parents want to get their children treated by their own family doctors, they are welcome to do so.

But the majority of people in India are too poor to afford treatment from private practitioners. Hence in India it is absolutely necessary that free treatment—both medical and surgical—should be provided in Government or Municipal dispensaries and hospitals.

Facilities for baths and treating verminous children should also be provided preferably in or near school buildings.

CONCLUSION.

In conclusion let us hope that in the near future the work of medical inspection of school children, and of physical training will be made compulsory all over India.

In the meantime I think it is not a bad idea to include this work in the Maternity and Children's Welfare work wherever possible.

Finally, if India wants to shoulder greater responsibility in future than hitherto, then let our politicians, statesmen and social workers begin their work from the very foundation, *viz.*, the mother—the infant—the toddler—and the school child. On them depends the future of India and there is no doubt that the next generation should be stronger and better than the present one both physically and mentally.

Let us not forget the saying that “The child is the father of man” or “The man in the making”.

Let us not forget also that the children are the real assets and jewels of the country—the potential men and women—power of the future.

WORK AMONG CHILDREN.

DR. R. YOUNG, DELHI.

1.—Is work among children of the toddler age being adequately undertaken at present?

I consider that such work is being most inadequately undertaken at present.

What are the facts, and how can we account for them?

Work among infants, that is children under one year of age, has been much stressed up to now; the reasons for this are partly the fact of the high Infant Mortality rate in India, and second the close connection between maternity work and that for infants. The figures for infant mortality have been, and are, quoted extensively, and are a shock to those who take any interest in the subject. This is partly responsible for the desire to work among infants so as to reduce the figures. Comparisons are freely made between figures for India and those for other countries, and India of course, comes off very badly in such comparisons. This has served as a sting to public opinion as well as a stimulus to those who desire to see wrongs righted. Secondly the work for improvement of the conditions of child birth took precedence in time of the work for child welfare and the close connection between maternal mortality and morbidity and infant mortality was naturally forced on the attention of workers in this field. In addition the helplessness of the baby and the appalling waste of life the figures stand for, make a strong appeal to the heart and imagination of all.

This has led to work among infants being taken up first where child welfare work is attempted.

A visit to the majority of centres will prove this. At the clinics the attendance of infants is sought for and encouraged. Toddlers if not discouraged, are at least not pressed to come. Mothers have come, in many cases, to realise that supervision and weighing of infants is helpful, but they do not realise that the same thing is necessary for toddlers. It is more difficult therefore to get toddlers to attend, and the Health Workers, probably unconsciously, adopt the line of least resistance and leave the toddlers to grow up as best they may. Even when they feel that the work is necessary they have generally abundance to cope with in connection with the mothers and babies and cannot undertake more work. Were more funds and therefore larger staffs available more work might be undertaken. The same holds good for home visiting. In this case the Health Visitor has not to overcome reluctance on the part of the mother to bring the child to the centre, as she sees it in the home. But the difficulty of pressure of work is the same. To keep in touch

with toddlers for four or five years after they have passed the infant stage, and until they enter school, which is the ideal, requires a great deal of time and systematic work. Very few committees are prepared for such an expenditure. They cannot visualise its ultimate results and they are in haste for something which will show a quicker return for the money expended; most committees require their workers to visit in an area where the number of births is too large to allow of anything in the shape of visits to toddlers being attempted. The workers are therefore forced to confine their home visits to seeing infants and in some cases, expectant mothers. It is perhaps not fair to lay all the blame on local committees as the Health Visitors themselves, though they have been taught the importance of work for toddlers, are not persistent enough in their efforts to keep track of the toddlers. They suffer from one of the besetting sins of the country, lack of system.

2.—*Is it the general opinion that such work is a necessity, and why?*

I do not think there can be any doubt as to the necessity of the work, at any rate in the minds of those who have any experience of children of this age. The lessons we can learn from English experience will be helpful here. Infant Welfare work was started in England about the beginning of the century, and during the 25 years of its existence has reduced the Infant Mortality rate by about half, a great achievement. The work of medical inspection of school children was taken up in 1908 and has made steady progress, resulting in enormous improvement in the health of the school child. After this work had gone on for some years however, it began to dawn on people's minds that a gap in the life of the child existed which it was most essential to bridge. Infant mortality had been reduced and infants were being cared for systematically through infant clinics and the home visits of health visitors. But the child after infancy was not being cared for in the same way and the result was that children of five or six entered the schools, and came under the care of school medical officers, in many cases with defects and departures from normal which could easily have been remedied had the child been under observation in the pre-school age. Examples are defective vision and hearing, evidences of rickets, chronic colds, and poor physique generally. Of late years therefore, much more attention has been given to the toddlers and the ideal aimed at is that the child should be sent up to school with a full record of its medical history from birth onwards which can be placed in the hands of the school medical officer.

If care of the child in the pre-school age has been found necessary in England, will the same not also be the case in

India? The answer is of course in the affirmative. Medical inspection of school children has scarcely begun in this country, so the demand for supervision of the child's health has not come from school medical officers as in England. Such a demand, in that it is voiced at all, comes from those engaged in the work for infants. All who think about it at all, are unanimous on the need there is and some feel it very strongly. Even those who are not actually doing child welfare work, but who are observant of the children round about them have remarked on it.

Why does such a demand exist?

It is always best to substantiate our hypothesis with facts and we can do so to some extent in this case. I take up from my desk the annual public health report of the Province of Bihar and Orissa. In the column of deaths between the ages of 1 and 5 years we find the death rate per 1,000 of the population of that age is 51.1. The death rate among children of the next age period, live to ten years, is 9.3 per 1,000. Surely this is eloquent proof of the need of care of the toddlers. Even if we suppose, as is the case, that the death rate at the lower age figure will always be greater, we cannot suppose that it need be more than five times as great. These figures are taken at random from a number of annual health reports. The others tell the same tale. The figures for the Punjab are 42 and 11.8 and those for Delhi city are 57.7 and 12.8. These are the cold facts, they represent a frightful loss to the country, and in addition we must not overlook the fact that if about 50 children out of every 1,000 of the age period die, many of those which survive are weak in health, and poor in physique, and lacking too in mental vigour, so that they will grow up inefficient citizens.

We may however prove our case, not merely from the tables of reports, but from the observations of workers on living children. In this case it is not easy to obtain accurate figures because the numbers of children under observation are so few. I can quote my own experience. Both at Delhi and at Simla. I have constantly had to remark on the poor development of children of this age. Those who have had regular weighings done, gain very slowly, have constant set backs and are far below the average weight. This applies not merely to the children of the poor, those who are living below the wage line on which it is possible to have adequate development, but to children of the better classes, who can have reasonable care and comfort. My co-workers in the same field will, I know, verify all I say. What makes these facts all the more distressing is that we so often find infants who are fat and healthy up to the age of 8-10 months, then fall off, actually often lose weight and at any rate fail to gain as they should. This was very noticeable

in the Simla Baby Week where I made tables of the average weights of the infants up to 18 months. Up to about 9 months the babies were fairly up to weight and many fine specimens were seen. From that period the weights tended to be stationery, and up to 18 months were decidedly lower than the book averages. Had the observations been made on children up to five years the tale would have undoubtedly been the same. The workers responsible for the Delhi Baby Shows have the same experience. Frequently the babies that have gained prizes in one year, are no more by the next year and practically all fail to progress as they should.

The reasons for the existence of this state of affairs are not hard to seek, and one could easily write pages on the subject. Ignorance on the part of mothers is a very powerful factor in the case. This affects the child in various ways. One of the most important is the question of feeding. The facts stated above concerning the condition of children of the age period show that there is a great amount of malnutrition among the children. The mothers do not understand the importance of proper feeding; they continue to give the breast as the sole food long after it is insufficient to meet the needs of the growing child. I am not urging that breast feeding should arbitrarily cease at a certain age,—that would be cruel to children who have no chance of obtaining milk otherwise,—but the mothers are impervious at present, in the vast majority of cases, to the suggestion that after 8-10 months the average child must have its diet of milk amplified with cereals, vegetables and other forms of protein than those present in milk. Could this principle take firm root in the minds of mothers a striking improvement in physique would follow.

Lack of sleep affects the children of this age profoundly also. The average child in India suffers again from this, and it has far reaching results on the health and development; children are not trained to sleep in the day and they are not put in bed at regular hours. The resulting exhaustion affects the nervous system in addition to the physique.

A third factor is the lack of discipline. This is also due to ignorance on the part of mothers and of fathers. They allow the child to dictate and impose its will on the parents. While advocating the utmost freedom for children in matters of occupation and play, I cannot help feeling that the average Indian parent is guided by nothing but the child's desires in all the important questions of food, sleep and clothing, instead of by the dictates of reason and knowledge. Children are allowed to eat what and when they please, sleep at irregular hours, and wear what they fancy. The result is poor physique, constant illness and bad habits which last a life time. Education of

mothers on these points is very slow but most necessary. The Chelmsford League has tried to meet this need in some of its publications and it is hoped that they will be taken more advantage of as time goes on. It should be realised that it is really a much more complicated affair to look after the child of 1 to 5 than the baby who spends most of his time in eating and sleeping. The toddler is a very different proposition and there is no doubt that for the mother to understand how to meet his needs, physical, mental and moral, is a highly complex task. For the sake of the lives at present being thrown away, it is a part of the work which should secure much greater attention than it does.

WORK AMONG CHILDREN.

Pre-school & School Age.

MISS MITRA, DELHI.

Work among children of toddler age has not received any attention at present. The reason of this omission is not far to seek. We have been too much engrossed in problems of higher secondary and college education. Our efforts in this direction have left us little leisure to think about children. It is because we have met with disappointment in the product of higher education, that our thoughts have turned to children. We are learning through bitter experience that the ideal of education cannot be realised unless the individual lives through each stage of his development in complete harmony with the law of his nature. As teachers we are awakening to the truth, that "the vigorous and complete development and cultivation of each successive stage, depends on the vigorous complete characteristic development of each and all preceding stages". Because of the failure and neglect of the past, we are to-day ready to admit, that the child under five, is still a closed book to the average man and woman. His needs and rights are not always understood. Children have not revealed themselves to us to the extent to which we see them revealed under present conditions elsewhere. They are suffered, rather than understood and enjoyed.

That there is need for fuller work amongst children under five is no longer questioned. All enlightened parents and teachers admit the importance of the early years of child life. Through ignorance of child nature and its impulses, incalculable harm has been unintentionally done. It is now generally conceded that the neglect and mismanagement of the earliest years of child life renders practically useless all that is done later. Instances to prove this are not wanting in number. It is a matter of common daily experience to meet children whose natural progress has been handicapped by disease, poverty, bad social conditions, insufficient food, want of fresh air, sleep, exercise and play. These obstacles come across us everywhere, simply because we have not taken the trouble to understand children and to learn to respect their needs and rights.

Thoughtful parents and members of society are beginning to feel anxious concerning the nature of their children. It is not uncommon to hear regrets concerning the orthodoxy of wives from educated husbands. Women, too are sensible of their shortcomings. The sight of a healthy well brought up child is always envied by good mothers. People are beginning to realise that the well being of a normal healthy child depends upon the observance of certain laws of nature, which must be known, and

followed, and that pampering and indulging them does not always end in being kind to them in the long run.

Thus it is that we see, that children are steadily coming into their own. It now rests not only with the parents, but also with society and teachers to help them to enter into their rightful heritage as early as possible. It is but a natural and legitimate wish to desire that not only the homes, but the India of to-morrow be a better India. The child of to-day will be the citizen of to-morrow in a country which is taking its rightful place amongst the nations of the world, whose culture has already enriched the general culture of mankind, and who, in generations to come, is destined to play an important part in the history of the world.

We must now face the practical problem of the training and nature of children. It is unnecessary to repeat that during the first few years of life the mother is the most potent agent in training the child. She inculcates those habits which may be called fundamental, since on them depends the welfare of the child. These habits may be summed up as those which impress the comfort of cleanliness, the regularity of meal times and of bodily functions, and the duration of time for sleep. It has been already pointed out that all Indian mothers are not conversant with these needs. They feed the children at odd times which is injurious to their digestion. They are not aware of the strain on the nervous system of the child, if it is not allowed to sleep quietly during the day. Children have been known to be awake at late dinner parties, festivals and other social functions, when they should have been in bed. Very few mothers know of the harm caused by the violation of these simple laws of nature. It is sad to see daily how the progress of healthy children is being marred through want of care and knowledge.

It is to this end that Nursery Schools would come in as a boon to this country. By providing the right condition for healthy childhood, they would enable the mothers to learn more about the physical and spiritual need of their children. These nursery schools could be a continuation of the work of the maternity visitors. It is only then that it would be possible to follow the complete history and progress of the individual child. These schools would have to be in the district or area of a health visitor. The question as to who would control and finance schools of this type is a matter of detail between the local education and health departments. In the interest of child welfare it is incumbent that both should amalgamate their resources to make the existence of such institutions possible in poor areas very especially.

The building of these nurseries should be simple and of a kind which poor people could afford and construct for

themselves. Kutcha mud walls with thatched roof would serve very well. There should be plenty of space enclosed as yard for children to play about. Plants, creepers and flowers would increase the attraction of the surroundings. Pet animals and birds should be kept. In short the environment should be made attractive and natural so as to create an impressionable influence on the unconscious child mind. It is good for children to learn to observe the habits and needs of pets. They grow in sympathy and kindness. The colour and sweet smell of flowers is also not without its influence for good on the moral and aesthetic nature of the child. Very few children in Indian homes are taught to love and appreciate the beauty of natural surroundings. Hence it is not a wonder that so much of the sordid conditions of life in slums is taken for granted without a murmur of protest. It is now accepted generally that slums exist because of the slum mind, that the best way to remove slums is to train children from early years to be accustomed to healthier and cleaner surroundings as a matter of habit.

Children will be brought to these nurseries in the mornings. They will have to be washed and cleaned. Personally I think this responsibility should devolve on the mothers. The tendency of poor women is to shirk these duties. Arrangements for putting children to sleep during the afternoons is essential. Sleep time is the time of growth, it is then that the waste products, the products of muscular and mental work are removed. Sleep then must be sufficiently long and if possible dreamless. It is acknowledged that a child can better stand deprivation of food than curtailment of the hours of sleep. In both cases the result is seen in stunted growth, but the effect from loss of sleep is much more marked. Poor children suffer from want of sleep in over crowded houses. They cannot go off early to sleep peacefully. The grown up members of the family are awake late, consequently the child's slumber is disturbed. These simple facts of child hygiene have to be taught to grown ups and the best way to make the teaching effective is to combine the instruction with practical demonstration. For instance the nurse or the teacher should see that in sleep the position of the body is right so that the working of the lungs and heart is not interfered with. She should also be able to instruct the mothers about the necessity for sufficient sleep.

There are other things pertaining to the physical needs of the body which will need attention in these schools. For instance in the matter of food and the intervals between meals some uniformity will have to be observed. The variety and kind of food necessary for children will have to be known. Difficulties in connection with the food question will arise on account of the extreme poverty of parents. How this could be solved is difficult to foretell. In any case it is not out of place to

mention that children can at least be taught to eat slowly and chew their food. They could be made to rinse their mouths after meals. They need water to drink in the afternoon. Hence the teachers can at least see to their drinking it slowly. Water hastily gulped does not quench thirst, and the restraining of the desire to drink is an effort of self control.

The above is but a brief reference to just a few of the functions which would come under the work of the Nursery Schools. A trained nurse with experience is necessary in infant schools of this kind. Each individual child needs careful attention. A record of the physical and mental progress of each child should be kept which could be followed up in later school life. Such a record would come in useful if medical inspection of school children is established as a matter of routine.

We shall now pass on to consider work amongst children of school going age. The minimum age for admission to a recognised school is five years. But teachers have begun to find out that they cannot force very young children to do mental work. Much of the dislike for school work that children have shown in the past is due to want of knowledge of the capacity of children at this time of life. Children have been made to sit still in rooms in rows with alphabetical primers and slates. As a matter of fact more than 50% of children attending our Primary and even Middle schools are to be found huddled together in the first two sections of the infant class. The ages of these children vary from just a little under six to ten or eleven. Mohammadan girls are generally older than Hindu girls. This department of the school is much neglected. Teachers do not take much interest in young children. They are impatient for results. They prefer teaching older girls who are able to work out quickly sums, and read off without stopping to breathe even, a whole page of their readers. Parents and authorities are also responsible for this deplorable state of affairs. If children cannot perform feats in arithmetic, multiplication tables, and reading, schools and teachers are blamed. Disparaging remarks are made at home about teachers in front of children. Hence it is not extraordinary that teachers prefer to concentrate on older children in the third, fourth and fifth class, as their efforts can be calculated by the amount of knowledge a child has crammed and disgorged at the time of examinations.

Much has been done during the past ten years in improving the quality of instruction in schools. But the day of individual work has not as yet arrived. Children are still treated in masses in a class and are not given the individual care and interest that is their due. If a child gets the highest marks and does well, she has the respect and good will of the teacher; if she is not

brilliant she is ignored. Teachers are not sufficiently interested in individual children to find out the reason for the general backwardness of a child. They will go and interview parents to increase the number on their roll but they never worry to talk things out with mothers concerning the welfare of the child. This want of interest and right spirit does not merely exist amongst teachers of poor educational qualifications, it is also to be found amongst more highly educated college trained teachers, who have had all the advantages of well a regulated cultured school and college life. Women teachers have not as a general rule realised that their calling has the dignity of a vocation. They look upon it as a mere means of earning a salary to keep them going. The right type of teachers are not forthcoming to be trained. Most of the vernacular teachers are very poor and have no social status, their educational attainment and home bringing up has been inadequate. Their work is also handicapped for want of self improvement. They have not been trained to use their leisure profitably. It is true that the supply of good vernacular literature is limited, but one has reasons to doubt whether they ever read the existing literature and enjoy *Ramayan* and *Mahabharat* as they should. The cultural side of their life is wholly neglected and is mainly responsible for the want of enthusiasm in school work. Music, art and appreciation of nature seems to find very little place in school life.

Besides the difficulty of staff and vernacular literature, there are other external deficiencies which mar the healthy progress of children of school going age. We dwell too much on early marriage and the *pardah* system, but there are other serious and graver drawbacks which can be removed if the interest of girls' education had the attention that is its due. The happiness and well being of homes depends very much on women as wives and mothers. We have to do in schools with the training of future mothers, and wives. Hence it is necessary to provide better school buildings in the localities from which children are drawn. Some measures should be taken by the Health Department to see that the sanitary arrangements of the houses in the environs of the schools are satisfactory. It is impossible at times to walk up a lane to the school. The puffs of air blown up from the street are very disagreeable. The brain cannot normally work if these unhappy things are allowed to exist. If in plotting out particular areas, spaces were reserved for schools before hand these difficulties would be considerably lessened. It is no use teaching girls hygiene and laws of health, when no steps are taken to provide better buildings in healthier and open surroundings with space for games and drill.

Before concluding I should like to say a few words regarding the necessity for the medical inspection of school children. The

intimate connection between the body and mind is a biological fact which no longer needs fresh proofs. Although as teachers we deal with the mental and spiritual requirements of child life, we still depend on the medical profession for guidance about the hours of sleep, the kind of food, etc. etc., each child needs. The health of the child must remain our first consideration, without it no mental training worth the name can be given. It is difficult for non-medical people to understand and grasp facts of child hygiene which come under the study and observation of trained medical experts. Harm has been done in the past to children by forcing them to do mental work under extreme external pressure. The advice of a doctor would be of great help, and blunders need not be committed if we are careful. Not only in forcing children to mental work, but also in the matter of physical culture and games, injury has been done to children in the past unintentionally. We wish to free ourselves from these heavy responsibilities. These experiences along with the increase of knowledge warn us to be careful. While desiring to give the best to the child, in helping him to make the best of his initial physical, and mental endowment we also ask for some attention to his physical needs in which the medical profession is invited to share our responsibilities towards the training of future healthy citizens. Together we can emphasize that "the system of education which prevails in every age is an expression of deep forces at work in the life of the people". Nothing is more impressive than the way in which the stream of education has broadened and deepened in response to an insatiable craving of the human spirit for what is true, what is beautiful and what is good. Progress is not a thing to be measured by tests in the three R's nor by a knowledge of this and that, but by a quickening of the spirit, the opening of the understanding, and the growth of character and application.

PROPAGANDA WORK.

DR. H. V. TILAK, BOMBAY.

INTRODUCTORY.

Significance of Propaganda Work.

1. Propaganda work is very necessary to educate public opinion in a problem that is entirely new to the people though it may be of utmost importance to them. In this way a need for the adoption of practical measures and a desire to utilize them are created among them. This is true of all new movements but especially so of the Child Welfare movement where not only ignorance but age-old harmful social, and religious customs have to be fought against. Not very long ago it was a disappointing experience of many Municipal and Government institutions for medical relief that welfare measures provided by them such as the appointment of Midwives and Health Visitors or the establishment of Maternity Homes were not taken advantage of by even the poorer section of the public. Even now instances can be quoted of this apathy and prejudice. This proves that well-organized propaganda work must precede and be kept up along with welfare measures.

Close co-operation between Voluntary and Official Agencies.

2. Propaganda work to be successful must have the support of some of the leaders of public opinion and must permeate all classes of society. Voluntary effort should, therefore, find full expression in this kind of work. This does not mean that official sympathy and support are not required. As a matter of fact without such support the Child Welfare Movement will never take firm root and spread in the mofussil. It is still held in some quarters that the movement will be misunderstood and lose much of the popularity it deserves if official support is freely sought. So far this has not been the case and I believe the time of hostility or indifference to proper official efforts in such educative measures is gone.

Results of such co-operation.

3. Full co-operation of official agencies should be sought whenever possible. The Public Health, Medical and Educational Departments of the Government or the local bodies are more or less intimately concerned in the various aspects of Child Welfare and it is but proper that they should take a large share in carrying out this propaganda work. It is also the experience that at many places the Collectors could render material aid in organizing this work. Such help was most freely sought and given in the Madras Presidency with the result that in 1925 nearly a million and a half men and women in about 4,000

places in the Presidency attended the lectures, or shows brought about by the Madras Health Council in co-operation with the Department of Public Health in Madras. Red Cross Societies, Nursing Associations, Health Associations, Labour Unions, Women's Leagues, etc., should be approached to join in the propaganda work to make it more effective and more wide-spread. Advantage should also be taken of the Co-operative Societies that are now established everywhere and command thousands of members.

I.—WHAT ARE THE MOST EFFECTIVE PROPAGANDA METHODS FOR INDIA?

A variety of Material.

4. The organizers should utilize all agencies that attract and fix the eye and the ear of the public. Distribution of leaflets and pamphlets is not very useful from this point of view though it is a cheap way of conducting propaganda. Models, posters, statistical tables and lantern slides are very useful but cinema films are found by experience to be an invaluable asset in the hands of organizers in attracting and educating large masses of people.

Dialogues and Dramas.

5. Dialogues and Dramas in vernacular on Health and Child Welfare topics offer another great attraction to the people and as these do not involve the organizers in any great expense they deserve to be encouraged in as many places as possible.

Vernacular Press.

6. The power of the vernacular press should not be forgotten in educating and preparing public opinion in favour of this movement. At present many of these give little importance to anything but political or semi-political problems but if the editors are approached personally and persuaded they will give space to short suitable notes sent to their papers from time to time. This will go a great way in slowly changing the mentality of the public towards Child Welfare. New Zealand took full advantage of the Press for the furtherance of this Movement with very gratifying results.

Propaganda during Melas and Congresses.

7. The large assemblage of people that usually attends religious festivals, melas, fairs, religious or social congresses and exhibitions should be taken advantage of by workers in this field by arranging illustrated lectures and cinema shows to attract and educate many people in the simple laws of health and sanitation as also Mother and Baby Care. This can be done more systematically and without much additional expenditure

by the Public Health and Medical Departments as these departments usually send parties for maintaining sanitation and attending to the sick at such times. The Medical Officers can also give simple lantern lectures to the school boys and girls and give public lectures in public halls during their touring season.

Necessity of a Provincial Committee and its activities.

8. But the preparation or purchase of models, posters, lantern slides, songs and dialogues, cinema films, cinema machine, etc., requires the close application of trained men and implies the expenditure of a large sum of money. This can only be done by a Provincial Propaganda Committee which can also keep paid touring workers. A good way to start effective propaganda is for the touring worker to spend about two days in a district town by previous appointment. He should try to secure the sympathy of the local non-official men and women by informal talks on the genesis and on the aims and objects of Maternity and Child Welfare Movements and satisfy their doubts. He should also give a fair idea to the general public of the benefits to be expected from the inauguration of this movement by giving them a lecture on the cause and prevention of a few diseases common in their area and what harm the untrained dais do through their ignorance and filthiness. The lecture if illustrated with posters or lantern slides will prepare them for an intelligent organization and appreciation of this work. This preliminary propaganda should preferably be done by non-official workers.

9. The Central Committee should possess one or two cinema machines and a number of films some of which should be prepared locally with synopsis in vernaculars. These committees should get ready suitable models illustrating the commonly noticed but harmful environments and customs of the people and the sanitary and healthy ones that we wish them to adopt. It is true that a lot of expense is incurred in sending the preliminary propaganda party and in forwarding models, posters, cinema apparatus, etc., in change of an operator from place to place but I believe it is amply repaid by the removal of the apathy and the prejudices of the people as also by the demonstration of some permanent result such as the appointment of Midwives or Health Visitors or the establishment of Maternity Homes.

II.—IS THIS BRANCH OF WORK ADEQUATELY DEVELOPED?

Apathy and prejudices of the intelligentsia.

10. If it be admitted that the propaganda methods outlined above will prove effective it will be seen that very few of these are adopted in a systematic way. Government and Semi-Government Public Health and Medical Departments do not as a rule conduct propaganda work through their officers when on tour. Many legislative, municipal and local board members do not as

yet know that this movement is very beneficial to the health and well-being of the present and future generations and is worthy of their close attention. There is still a dearth of willing workers for the furtherance of this movement even among doctors and social reformers.

Value of Personal Talks.

11. All this is due to (1) the apathy and prejudices of the intelligentsia and (2) the all-too powerful hold of politics over their mind whether in Government, Municipal or Local Board affairs. This apathy and prejudice can only be removed when a central organization sends out its propaganda party to various parts to work as indicated above. The comparative futility of merely writing to them and sending sample literature is seen from the fact that out of the 332 institutions and individuals so addressed only 60 replied and out of them only 42, *i.e.*, 12.65% consented to organize Baby and Health Weeks in the Bombay Presidency.

Prejudices.

12. Many wrong notions such as (1) mothers need not be told how to rear healthy babies, (2) education in mothercraft was not considered necessary so far with apparently no bad result, (3) men have very little to do with these childish activities, (4) poverty is entirely responsible for the present high death-rate among babies, and similar ones, are still too commonly held and only a systematic propaganda conducted in an attractive way, supported by convincing arguments and followed by the establishment and working of an Infant Welfare Centre or of a Maternity Home, can dispell these prejudices and make people realise their responsibility in the matter.

III.—IS THE INTEREST OF HUSBANDS AND FATHERS
SUFFICIENTLY SECURED?

Interest of Men.

13. The question has at present to be answered in the negative but the main cause of failure in this respect is again the apathy and prejudices held by them. All the same their interest in this movement is of great importance because in India men are more educated and therefore, more amenable to reason and persuasion. If they become convinced they can more easily win over their wives and mothers and introduce modern hygienic methods in the homes.

Association of Public Health Propaganda.

14. Isolated attempts are made to address specifically the husbands and fathers. Dr. Lankester dealt with this subject in detail in a model lecture published by the Lady Chelmsford League. A lecture on Venereal Diseases published by the same

League and one on 'Drink Evil' published by the Bombay Provincial Committee of the National Baby Week are also obviously directed more to men. Men will be more interested, in the beginning, in hygiene, sanitation and the prevention of epidemic diseases, and if it be true that the general health of mothers and babies is as much in danger as that of men if these are neglected, then propaganda for Child Welfare should necessarily include these problems.

IV.—WHAT IS THE PLACE OF "BABY WEEK" IN PROPAGANDA WORK?

Significance of "Baby Week."

15. Baby Week, as is being celebrated to-day in some of the large towns, utilizes almost all the methods of propaganda work discussed above. Indeed the element of amusement and novelty is sometimes so preponderating that the superficial observer sees very little, or manages to forget all else in it. But everywhere it does attract thousands of people and looking at the mildness of criticism against it and at the follow-up work that is being taken in hand in some of the places celebrating it, one has to admit that it has proved to be a powerful weapon in shaking public lethargy and removing prejudices in the matter of the Welfare of Women and Children and has opened a wide field for training and service of women.

The Main Purpose of Baby Week.

16. It is however necessary that the organizers of Baby Week bear constantly in mind that its inauguration is only a beginning and cannot of itself produce any tangible results. Increasing attention should, therefore, be paid to the real enlightenment of the public on the various aspects of Child Welfare and the present position of the particular town or village as regards the condition of her women and children. Exhibits without guides to explain them frequently convey no message to the onlooker who probably spares only a short time to see them. Practical demonstrations in mothercraft should be arranged whenever possible. Songs, health dialogues and lantern lectures arranged during the day, should not take place in the exhibition grounds as the attention of many is diverted from the exhibits and their guides. Cinema films, if in English, should be explained to the audience from time to time.

Minimum Requirements for an Effective Baby Week.

17. It is presumed here that the Baby and Health Week will present a variety of programme including processions, clean-up campaigns, songs, Health Dialogues, opening and closing speeches, magic lantern lectures, baby examinations and if possible scout displays and cinema shows. It will also be

accompanied by a well laid-out Health and Mothercraft exhibition of models, posters, demonstration stalls, etc., for the education of the local public. It is only in this way that the apathy and the prejudices are shaken effectively and it is a useful preliminary to the adoption and success of any scheme of Maternity and Child Welfare in the area. It is clear that only a large and financially strong Provincial Committee can produce or purchase all the material required and if Baby Weeks are held simultaneously in the same week throughout the presidency the committee cannot send this material to more than a few places. It was, therefore, thought advisable in the Bombay Presidency to organize Baby Weeks at different times. One town after another in the neighbouring area was advised to organize them with the advice and full co-operation of the Provincial Committee in material and men. The method of work of this committee is similar to that outlined in paras. 8, 9 and 16 of this paper.

A well established machinery working in larger villages.

18. But in this way only about 100 towns at the most can organize Baby Weeks in a year and the figure of about 4,000 a year reached in Madras Presidency cannot be attained. I, therefore, recommend the method adopted by the Madras Public Health Department for larger villages so successfully. Nearly every village with from three to four thousand population can now-a-days boast of representatives of the Provincial Medical, Public Health and Educational Departments with well-regulated establishments. Many of these villages or small towns possess in addition Village Panchayats or Municipal Boards. There is thus an influential and representative local machinery in working order that can legitimately be expected to organize propaganda work in consultation and co-operation with the Provincial Committee and the local leaders.

A judicious combination of methods for propaganda.

19. Sets of models, posters, magic lantern slides, etc., can be kept ready by the Provincial Committee to be forwarded to these villages in charge of trained workers. In this way a very large number of villages will be able to celebrate Baby and Health Weeks in an effective way. Detailed suggestions for organizing Baby and Health Weeks, a model plan of exhibition and a programme suitable for larger villages is published by the Bombay Provincial Baby Week Committee for the guidance of local workers. Proper development of this movement ought to see every district maintaining a full set of propaganda material at its headquarters in charge of a trained man. I believe a judicious combination of the methods followed in the Madras and the Bombay Presidencies should give very satisfactory results in future.

Follow-up work.

20. Simple practicable schemes of Child Welfare suitable to the town or village should be outlined and discussed during the Baby Week. The results of the medical examination of babies under two years should be announced and the necessity for the prevention of the many defects found in them should be pointed out. The way to prevent them should also be indicated. It may be that no practical step will be taken in the first year but if the organizers keep it constantly in mind it cannot be delayed long. Appointment of a Midwife where there was none, or more where there were few, should be the first step to be followed by the establishment of an ante-natal and baby clinic under the supervision of an Honorary Doctor.

21. These measures do not involve the founders in great expense and will be appreciated and utilized by the public if the Baby Weeks have been celebrated on proper lines. It is really these tangible permanent measures that will ultimately break down prejudices and introduce hygienic methods of Maternal and Baby Care in every household and thus lead to the improvement of health and lowering of infantile morality. More ambitious and costly schemes such as Maternity Homes, Creches, Maternity Benefits, etc., will then follow as circumstances permit. Propaganda will still have to be kept up, as was observed in the beginning, to keep this problem in the forefront and secure more recruits to its cause.

V.—HOW CAN ADVANTAGE BE TAKEN OF SCHOOLS IN EDUCATING CHILDREN IN SUBJECTS SUCH AS HYGIENE AND MOTHERCRAFT?

Hygiene Instruction in Schools.

22. While we need not slaken our efforts in propaganda among the adult population on the ground of their very deficient general education or firmly rooted prejudices, it is frequently noticeable that the results of propagauda work among them are not very encouraging. Habit is second nature and so it becomes difficult to change habits in adults. Minds of children are impressionable. Knowledge of hygiene and habits of living based on it, if imparted to children in their school-age, will not only improve and maintain their health and strength from that early age but will make them better citizens of tomorrow. It is moreover possible to impart elementary education in personal and domestic hygiene to children systematically in the school-age when they are under the control of schools for a number of years. There is no such supervision over the adult population and hygienic instruction to them by propaganda is, at best, fragmentary and uncertain.

23. It is, therefore, practicable and highly advantageous to introduce instruction in hygiene to school children and in

mothercraft to grown-up girls in the High Schools. Simple illustrated primers on Elementary Biology, personal Hygiene, Domestic Sanitation and Mothercraft can be easily prepared in vernacular so as to serve the requirements of a graded course in this subject and the school teachers can be instructed in, and supplied with, sets of magic lantern slides, charts, etc., to make the subject interesting and easy. In this way the rising generation can be taught systematically in one of the essential subjects every body ought to know. These primers will be useful to Health Visitors and the general public as well. It will make propaganda work easy and fruitful and the inauguration of practical schemes in Child Welfare and Public Health will be taken up by the enlightened public as a matter of course.

Boy Scouts and Girl Guides.

24. Knowledge of Hygiene and domestic sanitation along with that of First-Aid to Boy Scouts and Girl Guides is of prime importance. It is well known how useful this army is to any civic function or civic need. Their work during the Baby Weeks at many places showed clearly how much more useful they could be if they received systematic practical instruction in Hygiene in schools. In America boy scouts and girl guides are proving very useful in Health processions, Sanitation-rounds and Clean-up campaigns arranged during Baby and Health Weeks. Health instruction is thus not only useful to themselves but serves as an eye-opener and an object lesson to the adult population. It should be our hope that every young student will become a Boy Scout or a Girl Guide and therefore hygienic instruction in schools should receive urgent attention.

An authoritative lead to the Provincial Governments.

25. In conclusion I request this Conference to pass suitable resolutions giving a useful lead to the Provincial Governments in the matter of (1) allocating annually definite sums to be given to approved Provincial Committees for propaganda work, (2) instructing their officers in the medical and public health departments to help this propaganda while on tour, (3) getting useful primers on hygiene, etc., published in vernaculars common in their area, (4) introducing hygiene instruction in the schools not making it a subject for examination but for compulsory attendance, and (5) establishing Child Welfare Departments of their own to (a) stimulate, help and supervise schemes of Maternity and Child Welfare springing up in provinces as a result of propaganda work, (b) improve and co-ordinate the activities of the medical, Public Health and Educational Departments of the Government so far as they relate to Maternity and Child Welfare, and (c) give effect to the laws relating to Child Welfare that may be passed by Governments from time to time.

THE ADVISABILITY OF GIVING INSTRUCTION
IN THE CARE OF THE CHILD IN THE
GIRLS' SCHOOLS IN INDIA.

MRS. E. A. JOHNSTON, BALASORE.

The last decade has witnessed a great advance in all matters relating to Maternity and Child Welfare Work in India, particularly in the great cities where it has been possible to train the dais and to open Child Welfare Centres.

In considering the question in its entirety, it at once becomes evident that what has been accomplished in the cities is by no means the ultimate end of the work, but must be regarded more or less as an object lesson to show what can be accomplished when due attention is paid to the laws of health. The main object of the League will not be achieved until the knowledge is made widely available to all whom it concerns, and the method by which this may most readily be done is a problem worthy of serious consideration.

In order fully to grasp the question it is necessary to visualise India as a whole. It should be remembered that the real India is the country, the vast, seemingly endless plain, with the countless little villages hidden away in the trees, where the inhabitants are, as a rule, entirely ignorant of the meaning of the word "hygiene".

When the great distances to be covered, and the vast numbers to be instructed are taken into consideration, it becomes evident that if the work is to be done thoroughly and inexpensively, use must be made of the already existing machinery, *i.e.*, the schools. It would be a simple matter to introduce instruction in the care of the child into the curriculum of all the Girls' Schools in India, and if this were done the information would be continuously and inexpensively imparted throughout the length and breadth of the land.

In considering the question as to whether the girls in the Primary Schools are fitted to receive the instruction, two important psychological facts should be borne in mind—

1. That whereas adults are, as a rule, averse to new ideas, children, on the contrary, welcome and assimilate them eagerly.
2. That when a subject interests them, the pupils learn with pleasure, and there is probably no subject in the world so fascinating to the average little girl as a baby.

Professor Baldwin in his book entitled—"The Mind" relates how his little daughter aged four, pretended to be her mother, and went through the whole process of dressing her doll, naming each garment correctly as she took it up. If this can be done at the age of four, it is evident that girls of seven and upwards are capable of receiving much more advanced instruction. In the Indian girl the educational authorities have splendid material upon which to work, it is important that her capabilities should be developed to their highest extent. The Indian girl is, as a rule, patient and unselfish, and it is a pleasure to see her caring for her younger brothers and sisters. The one thing she lacks is knowledge, if adequate instruction be given her, she will take a high place amongst the women of the world. The surroundings in which she lives should also be remembered. Her parents are probably entirely ignorant, she is isolated in a small village, possibly ten or fifteen miles from the nearest doctor: surely if ever there were a case in which sound practical instruction is a necessity, it is that of the Indian village girl.

Education has been defined as the art of making the conscious pass into the unconscious mind, and the object aimed at should be to inculcate certain simple facts into the children's minds, and to crystallise them into habits. It would not be difficult to teach the average child in such a way that she would realise the importance of such simple matters as keeping a baby's eyes clean, and taking him to a doctor if he were really ill, she would, if properly instructed, shrink with horror from the mere thought of giving a sick child unripe mangoes to eat.

Exactly how much she should be taught would be a matter for the experts to decide; but so far as maternity work is concerned, there could be no harm in mentioning that when a baby is born a dai is generally employed, and it is of the first importance that a trained woman should be obtained. The question must sooner or later resolve itself into one of supply and demand, and in order to expedite the work it is essential to create a demand for the trained dai. In this connection the Indian girl who has received some instruction at school, and knows the danger of dirt, will prove an important factor in the case; she will have none of her grandmother's prejudices, and, when there is a persistent demand for the trained dai the members of that very backward and obstinate class will have to give up their policy of harmful ignorance, and come into line with the rest of the civilised world.

Grave responsibilities are thrust upon the Indian girl while she is still little more than a child, and it is a clear duty to give her adequate and regular instruction, in order that she may not sink under the burden that is laid upon her.

The complaint is frequently made that the instruction given in the schools is not of a sufficiently practical nature. If the care of the child were made one of the most important subjects in the school curriculum this objection would be no longer valid, as it is probable that the vast majority of men consider the subject one of paramount importance.

An effort to introduce the proposed teaching has been made in the Balasore district. In June 1924 a Vacation Course for Teachers was held at Balasore and approximately 130 Primary School Teachers came in from the mofussil. A series of lantern lectures was given on the care of the child, the prevention, cause and treatment of malaria, cholera and small-pox, and the questions of general hygiene and village sanitation were dealt with. The Lecturer was well satisfied with the result, and reported that the teachers took an intelligent interest in the work.

On September the 6th, 1926, the Balasore District Board passed a resolution, requesting that the above mentioned subjects might form a part of the school curriculum, and the Commissioner forwarded the resolution to both Ministers, with a letter recommending the suggestion. The matter is being considered by the Educational authorities.

It can scarcely be denied that the schools offer the best means of imparting the instruction in an adequate and inexpensive manner, and surely when this has been done it will prove of great economic value. The human body is marvellously constructed, its machinery is so fine and so complicated that a simple cause may do almost untold harm, as is evidenced every day by the large number of cases of preventable blindness. No one would think of entrusting a valuable machine to an untrained man, and yet the ignorant mother is the rule rather than the exception.

The humanitarian side of the question must not be overlooked. Shakespeare speaks of "dull, unfeeling, barren ignorance", and the words are profoundly true. Everyone who has worked amongst the Indian poor has come across cases of such dull unfeeling ignorance, in which the mother did not seem to realise that her neglect was causing great suffering to her unfortunate child. Had these mothers been properly instructed in their youth, such an attitude would be impossible: habit is enormously strong, and the lessons learnt during childhood are those that are most indelibly impressed upon the brain. The Jesuits knew what they were talking about when they said—"Give us the child until he is seven, and then do what you like with him".

An eminent historian has written: "The prevention of death is much, the prevention of suffering is much more." and it is in order to prevent unnecessary suffering amongst the children

that the proposed instruction should be given. It is probable that most educated mothers look back with bitter regret upon some error in judgment that caused pain or discomfort to their child; what then must be the fate of those children whose mothers are entirely ignorant? It is clearly realised to-day that mothercraft is an art which must be taught, and it is an obvious duty to act upon the knowledge. Give the Indian girl knowledge, which is power, and she will possess that for which all good women long, the power "to heal, to redeem, to guide, and to guard".

OUTLINE OF THE DISCUSSIONS OF THE CONFERENCE.

Group A.

Part I and Part II (1).

Summaries of the papers of Major Russell, Dr. Young, Dr. Wilson and Dr. Sethna having been read, Major Webb opened the discussion by declaring that the Central Government was doing very little for Child Welfare work, and the Provincial Governments not much more. He laid stress on the amount done by voluntary societies. Major Webb made a valuable suggestion that the Far Eastern Association of Tropical Medicine which is to meet in Calcutta in December should be asked to include Child Welfare Section.

Mrs. Cuthbert King was of opinion that the work would have to be taken on by Government, but that in the meantime voluntary committees should continue to be responsible, and that they should be careful to start the work on right lines so that Government would not have to alter the plans later on. Officials should be members of voluntary committees.

Dr. Balfour pointed out that Government assisted the work enormously in England by giving Exchequer grants to the amount of half the expense involved. She advocated resolutions being sent to the Government by the Conference.

Mrs. Cousins thought that there should be a loose connection between Government and voluntary workers, and that the work should be voluntary to as great an extent as possible.

Mr. Devadhar was of opinion that the attitude of Government officials should not be dictatorial, and that his experience was that interest was on the increase among voluntary and unofficial workers.

Dr. Twining, referring to Lucknow remarked that the Central Government gave a grant amounting to 1/3 of the cost of the

Child Welfare scheme, but that they failed to realise its preventive nature.

Mrs. Chatterji claimed that Government contributed much to the work in the shape of local grants, giving Delhi Municipality as an instance.

Dr. Solomon quoted the example of Bombay. He urged the need of full time paid workers and pled for greater co-operation between voluntary associations and Government.

Dr. Nanavatty was for encouraging voluntary associations as much as possible. He felt legislation at this stage would be premature.

Dr. Young pointed out the insecure basis of voluntary work both with regard to funds and personnel; on the other hand work undertaken by officials was likely to lack the personal interest seen in voluntary work.

Dr. Tilak thought that guidance and support should come from Government, but that the actual work should be done by voluntary societies.

Dr. Headwards endorsed Dr. Young's points, and instanced Calcutta where finance was very uncertain and Government support necessary.

Part II (2), (3) & (4).

Summaries having been read—

Dr. Tilak said that it was incorrect to say, as one of the speakers had done, that at present there was much wasted effort, as the efforts made were bringing about a reduction of infant mortality.

Mrs. Chatterji was of opinion that all infant mortality could be traced to three causes, *viz.*, economic conditions, ignorance, and child marriage.

Dr. Sandilands in discussing the methods of an enquiry into Infant mortality, advocated an intensive enquiry in various

districts, both urban and rural. He pointed out that the present statistics were absolutely unreliable as the sources of information were untrustworthy.

Dr. DaGama pointed out that any investigations which had been done up to the present time had been confined to towns. He pleaded that any enquiry that might be conducted should include the villages.

Some speakers thought that Health Visitors might be able to assist in making an enquiry whilst others were strongly of opinion that no report as to the cause of an infant's death could be accepted unless a medical man or woman had seen the child alive.

Part III.

A summary of her paper having been read by Mrs. Cousins a brisk discussion took place on "Voluntary workers". The difficulties in the way were emphasised by Mrs. King who pointed out the stumbling block of purdah in the North, and by Mrs. Symons who laid equal stress on the obstacle of "Caste".

Mrs. Strathie, speaking for the Girl Guides Association said that Girl Guides are being trained in civics and responsibility and that this should lead to a greater supply of workers in the future.

Dr. Headwards was able to point to what had been achieved in Calcutta by voluntary workers, Red Cross Societies, and St. John's Ambulance, and Mrs. Symons to Madras where the work could not have been carried on so extensively without the help of voluntary workers. These did the major portion of the work and attended centres regularly in turns. Miss Simon said that she had experienced great keenness on the part of voluntary workers especially men, and Mr. Devadhar felt that in a few years time many more would be forthcoming. Miss Piggott also recorded much help from the side of men. On the other hand several speakers adopted a much more pessimistic tone and felt that voluntary workers were either totally lacking or broken reeds. Such were Dr. Sethna and Dr. Pillay, the latter especially bemoaning the fact that social considerations

played so large a part in influencing people to take up work under voluntary associations.

Group B.

THE HEALTH VISITOR AND HER WORK.

Part I (1), (2) and (3).

Summaries having been read, the subsequent discussion centred chiefly on the question as to whether English training should be demanded or not.

Mrs. Tarr speaking for the Central Provinces said that as the Province was backward educationally it was almost impossible to get girls of sufficient education to train in English. Therefore if the work was to go forward at all, vernacular speaking girls had to be accepted.

Dr. Shikhare described the methods of the Poona Seva Sadan in giving a preliminary education to suitable women. He thought that widows should be used for this work as they are free from family ties and usually older and more able to accept responsibility.

Col. Gharpurey said that the work of Health Visitors was essential to progress in hygiene and that the home visiting side was especially important. It was a great pity that a large Presidency like Bombay had no training school for health workers. He advocated also classes for women in simple hygiene, mothercraft, etc.

Mrs. Chatterji felt that Health Workers trained in English would be excellent for the work of administration and control of centres, but that actual Health Visitors should be vernacular trained so as to be in real touch with the homes they visit.

Dr. Young opposed that idea that English education per se put a Health Visitor out of touch with the homes of the

people. She was of opinion that English education was absolutely necessary because it provided the back ground for the Health Visitors' work which was a most necessary factor.

Dr. Pillay described the classes for women held at Sholapur which were a means of instructing ladies in hygiene, etc., and had proved successful and ample.

Part II.

Summaries having been read—

Dr. Wilson remarked with reference to the provincialisation of Health Visitors' work that for such a scheme to achieve success the Director of Public Health would have to be interested in the work and that she had met Directors of Public Health who certainly did not put Child Welfare work in the forefront.

Mrs. Tarr while agreeing with a scheme for provincialisation pled again for a cheaper personnel, in the Central Provinces, where Health Visitors received about Rs. 50 p. m.

Dr. Sethna outlined the scheme of Health Visitors working under the Municipality of Delhi.

Group C.

ANTENATAL WORK.

The discussion in this group was rather poor and served to reveal now very little was being done on these lines in India.

After the summaries had been read—

Dr. Houlton urged the necessity for propaganda work among the public on the need for antenatal work. She spoke of her experience at Simla where a clinic was conducted. Difficulty was not experienced in securing the attendance of the better class women, but that only a few were thus touched. She felt that the need for such work not recognised in the hospitals in India.

Dr. Maya Das explained what she was attempting in Baroda State. The women were willing to come for examination and

she believed it was of great educative value to those she came. They were brought to realise the care required in pregnancy and labour and were made familiar with the hospital.

Dr. A. C. Scott quoted from an enquiry which she had made with regard to antenatal work in Women's Hospitals. It showed that in many of the large hospitals no antenatal work was being undertaken.

Mrs. Johnston thought that there was great need for women doctors to do more medical work in the homes of the people. There was much suffering because the women could not or would not go to Hospitals.

Mrs. Pennell quoted the example of English work where antenatal clinics were now regarded as part of the routine. Dr. Young thought that the idea of allowing women doctors especially of the Sub-Assistant Surgeon type, to do medical work in the homes of the people would not lead to preventive work as they were not educated in the idea. Mr. Devadhar was of opinion that a resolution regarding the teaching of child welfare work should be sent to all medical colleges and schools from the Conference, an idea which was supported by Dr. Balfour and Dr. Nanavatty. Dr. Twining thought that the resolution should also be sent to Sir Norman Walker and Col. Needham who were touring the Medical Schools of India on behalf of the General Medical Council of England. Dr. Shikharé also emphasised the ignorance of most doctors on these subjects and said propaganda work was necessary.

Group D.

THE DAI.

The subject of the dai, a hardy annual, aroused much interest and there was no lack of speakers.

After the summaries had been read—

Mr. Devadhar confessed himself a convert to the dai. He had formerly held she was hopeless but he now agreed she should

be trained. At the same time he felt that we should not give up the idea of training better class women.

Dr. Nanavatty said that the patients as well as the dai are to blame for the existing state of affairs. All that the dai need be taught was the essentials of cleanliness.

Dr. A. C. Scott gave her experiences of the Victoria Memorial Scholarships Fund. She said that after fifteen years work they had only found a few places where the scheme was successful. In other places the money had been diverted to training other classes of women. She felt that the indigenous dai required a prolonged training and after that constant inspection of her work, but as she undoubtedly had the confidence of the people she was worth training. Dr. Balfour quoted similar experience. Dr. Sethna gave the history of the training of midwives in Delhi. He felt the work had been a distinct success and that the people had learned to appreciate the trained dais. Mrs. Cathbert King urged the need of propagananda among men.

Dr. Headwards, along with other medical women present, reaffirmed the need for supervision after training. It was useless to train without supervision. Clearly this is the crux of the present position with regard to the indigenous dais. Many gave their personal experience of work among dais and on the whole the efforts made seem to be well worth while. Among such were Miss Piggot who told an amusing anecdote of a man in charge of a burning ghat who complained that his takings on the way of jewelry were much reduced now that fewer women died in child birth, Mrs. Mitra who related her experience in the North West Frontier, Dr. Stuart of Quetta, Miss Simon (Lahore), and Major Phatak (Gwalior State). Significantly enough there were few protagonists for the view that the training of dais should be given up and midwives employed instead. Mrs. Symons from her experience in Madras took this attitude but was not supported by workers from other parts of India; Dr. Brown declaring that we must either train the dai or make enemies of them, and Major Hance that dais must be trained as midwives were not available.

Dr. Pillay called attention to the danger of the unpaid dai, the counterpart of the English "handy woman" who was utterly ignorant, but capable of doing much mischief.

Part II.

The question of legislation roused a good deal of discussion and differences of opinion were well marked. After the summaries had been read—

Mr. Shery remarked that legislation could only be considered where dais had already been trained and that there was crying need for the training of dais in many places.

Miss Griffin agreed with Major Webb that in some places legislation could be enforced but suggested instead a register renewable annually on the signature of the Medical Officer of Health. Dr. Sethna pointed out that registration and license were two different things. Several speakers again emphasised the need for supervision and the lack of workers for the task. Mrs. Tonkinson pertinently asked who would prosecute a dai found guilty of mal praxis. The answer was the Medical Officer of Health. The difficulty of securing evidence in such a case was pointed out in the present state of public opinion.

Mr. Devadhar declared himself conservative on the issue. All places were not so advanced as Delhi and Simla. Public opinion must be educated and persuasive methods adopted.

Group E.

WORK AMONG CHILDREN.

After the summaries had been read a rather desultory discussion took place.

Replying to one of the speakers Dr. Young said that nursery schools were an impossible ideal in view of financial difficulties. The difficulties alluded to were felt also in connection with the medical inspection of school children. The need of work among toddlers was strongly felt by all, but it was

clear that not much could be done in view of the need for extra workers. The need for arousing the interest of fathers was stressed and Miss Bacon pleaded for more research into food values and the study of dietetics.

In connection with medical inspection the need for interesting both parents and teachers was generally felt and also that the education department should give more lead in the matter. Major Webb gave an interesting account of the system in force at Simla where all school boys were inspected. The standard of health and cleanliness was decidedly improved. The cost was borne by the Municipality which had also voted money to buy spectacles for poorer boys and the services of a dentist were also to be employed. The parents were informed as to all necessary medical treatment. Miss Simon was of opinion that parents should be asked to come to the inspection and would avail themselves of the privilege. Mr. Devalbar however felt that all the responsibility should not be put on the parents.

Group F.

PROPAGANDA.

Summaries having been read—

Dr. Kale related his experiences in Nasik. Propaganda work was carried on by means of—

(1) Baby week, (2) Lantern lectures, (3) Weekly lectures for ladies, (4) Free supplies of milk, (5) Health Centres for children up to 3 years. Statistics of the centres eloquently proved the need of Health education.

Captain Ubhaya explained the system in Madras where the work was done departmentally. Officers carried sets of slides and lanterns with them on tours and gave lectures. Sometimes they were on special duty at fairs or festivals. The work was regarded part of the ordinary duties of the officer.

Mrs. Cousins felt that Baby Week was the best starting point for propaganda. It had a great effect especially when the

capital city of a province set the example. General propaganda led to education of the people and so gradually to legislation being possible.

Dr. Commissariat emphasised the need for variety in propaganda work. The Health Visitors and midwives were also means of spreading information and enlightenment. She advocated schools for the dais children.

Mr. Shery considered it of prime importance to rouse the interest of Indian women. This might be achieved by organising groups in the various mohallas—a proceeding more likely to be successful than large meetings to which women were unwilling to come.

Miss Simon remarked that the education department in the Punjab had supplied all the district medical officers of health and the Inspectors of Schools with lanterns and slides and it was part of their duties to give lectures. Now cinemas were also being introduced, she considered the standard of Health Education in schools was very high, the children being keen and well informed. In the Punjab Baby and Health Weeks are combined. Major Webb described the cinema propaganda in Simla for all classes of the people.

Mrs. Strathie thought the scout and guide movement should be used to teach personal and community hygiene and Dr. Solomon was of opinion that Government should encourage propaganda the way they did scouting.

Mrs. Kanetkar felt that more women workers were required in Baby Week propaganda. Mrs. Bhat described the methods of the Poona Seva Sadan where the women were induced to come for sewing and knitting classes, and from that led on to mothercraft lessons.

Other speakers laid stress on the use of literature in propaganda though there was a feeling that in the present state of literacy of India the use of literature was limited.

RESOLUTIONS.

Group A.

ORGANISATION.

1. That in the opinion of this house such Conferences should be held every three years, but not necessarily in Delhi.

Proposed by Dr. M. I. Balfour.

Seconded by Mrs. Symons.

2. That this Conference believes the time has come for an intensive enquiry into the causes of Infant Mortality in India and for this purpose asks the Government of India to appoint a medical woman as a full time research worker for a period of at least 3 years to work in connection with a Research Institute in one of the large towns of India.

Proposed by Dr. M. I. Balfour.

Seconded by Mr. Shery.

3. This Conference is of opinion that a trained Lady Organiser for all work connected with Infant Welfare and Maternity care preferably an Indian, should be appointed on the staff of the Director of Public Health of each Province.

Proposed by Mr. Devadhar.

Seconded by Dr. Shikhare.

4. Resolved that in the opinion of this Conference there should be greater co-operation and co-ordination between the official and non-official agencies in carrying out propaganda work connected with Maternity and Child Welfare activities as it is found to be inadequate at present.

Resolved also that a copy of this resolution be forwarded to the Imperial and all Provincial Governments with a request to give it wide publicity.

Proposed by Mr. Devadhar.

Seconded by Mr. Shery.

Group B.

THE HEALTH VISITOR AND HER WORK.

5. Resolved that in the opinion of this Conference the time has arrived that there should be at least one Public Health School established in every province in India for the training of Health Visitors. That in such provinces where there are such schools started by private agencies, they should receive financial assistance from Government.

Proposed by Mr. Devadhar.

Seconded by Dr. Headwards.

Group C.

ANTENATAL WORK.

6. That an antenatal clinic shall be established in connection with any hospital under the control of the Dufferin Fund.

Proposed by Dr. Houlton.

Seconded by Mrs. King.

7. That this Conference is of opinion that antenatal work in India is one of the most important branches of Welfare work and would urge on Local Governments the necessity of providing facilities in the way of money and interest to the various bodies willing to undertake this work in a scientific and efficient manner.

Proposed by Dr. Headwards.

Seconded by Dr. Maya Das.

8. (a) Resolved that in the opinion of this Conference the subjects dealing with Infant Welfare and Maternal care be included as subjects for special study in the curriculum of studies and in the examinations of all Medical Schools and Colleges.

(b) Resolved also that a copy of this resolution be sent to Sir Norman Walker, representative of the General Medical Council and Colonel R. A. Needham.

Proposed by Mr. Devadhar.

Seconded by Dr. Shikhare.

Group D.

THE DAIS.

9. Considering the present requirements of the country, this Conference is of opinion that a systematic effort should be continued to train indigenous dais without slackening the present activities in the direction of training Indian women as nurses and midwives.

Proposed by Mr. Devadhar.

Seconded by Mr. Shery.

10. In the opinion of the Conference the time has arrived for large Municipalities to introduce registration of midwives or indigenous dais in such places as have adequate facilities for their training and inspection.

Proposed by Major Webb.

Seconded by Dr. Solomon.

Group E.

WORK AMONG CHILDREN.

11. That in the opinion of this Conference the health of the future generation should be safe guarded by regular medical inspection of school children. Local Governments should therefore be approached and asked if this could be included in their educational schemes at an early date.

Proposed by Dr. Stapleton.

Seconded by Dr. Da Gama.

Group F.

PROPAGANDA.

12. Resolved (1) that in the opinion of this Conference Provincial Governments and Local Bodies be urged to allocate annually definite sums to be given to approved Provincial and

Local Health and Welfare Propaganda Committees for propaganda work throughout their provinces, and

(2) That the Provincial Governments and Local Bodies be moved to urge the Officers of the Medical and Public Health Departments and of the Education Department to assist actively in propaganda work while on tour.

Proposed by Dr. Tilak.

Seconded by Dr. Ranade.

13. That in the opinion of this Conference Hygiene should be a compulsory subject in all schools.

Proposed by Dr. Stapleton.

Seconded by Mrs. Chatterji.

14. Resolved that, arising out of its discussion on propaganda this Conference deeply deplores the effect of early marriage on the health of the nation and urges the Government of India to pass legislation making marriage under sixteen a penal offence. It demands that the age of consent be raised to sixteen years and as a step towards this end it supports Sir Hari Singh Gour's bill to raise the age of consent to 14.

Proposed by Mrs. Cousins.

Seconded by Mrs. Johnston.

**LIST OF DELEGATES ATTENDING
THE CONFERENCE.**

BALUCHISTAN.

Dr. Stuart, C. M. S. Hospital, Quetta.
Dr. Brindley, Dufferin Hospital, Quetta.

BIHAR & ORISSA.

Mrs. Duncan White, Health Visitor, Gulzarbagh, Patna.
Mrs. E. A. Johnston, Collector's House, Balasore.

BENGAL.

Dr. Pratap Chandra Sen, Medical Officer of Health, Dacca.
Miss I. Wingate, Industrial Secretary, Y. W. C. A., Calcutta.
Dr. Headwards, Secretary, Bengal Training School, Calcutta.
Miss Olliver, Superintendent, Titaghur Mills Health Centre,
Titaghur.
Dr. Stapleton, W.M.S., Dufferin Hospital, Calcutta.

BURMA.

Mrs. A. Maung Gyi, Rangoon.
Dr. E. Jean Miller, Rangoon.
Mrs. Tonkinson.

BOMBAY.

Dr. DaGama, Public Health Department, Bombay.
Mr. G. K. Devadhar, Seva Sadan, Poona.
Mrs. Jhankibai Bhat, Seva Sadan, Poona.
Mrs. Kanetkar, Seva Sadan, Poona.
Dr. H. V. Tilak, Servants' of India Society Home, Sandhurst
Road, Bombay.
Captain Pillay, Honorary Secretary, Maternity and Child
Welfare Association, Sholapur.
Mr. C. G. Rayal, Secretary, Sanitary Association, Viramgaon.
Colonel K. G. Gharpurey, I.M.S., Civil Surgeon, Sholapur.
Dr. N. L. Runade, Secretary, Baby Week, Poona.

BOMBAY—(contd.)

- Rao Bahadur Dr. P. V. Shikhare, Civil Surgeon, Thana.
 Miss D. Cama, Ahmedabad.
 Khan Sahib Abdul Latif Hajrathkhan, M.L.C., Sholapur.
 Dr. Kelkar, Secretary and Medical Officer, K. E. M. Hospital,
 Satara.
 Dr. P. V. Kale, Secretary, Bal Arogya Sanstha, Nasik.
 Mrs. Sarojini Naidu, Bombay.
 Dr. J. D. Munsiff, Assistant Director of Public Health, Nasik.
 K. B. Dr. B. H. Nanavatty, Vice-President, Sanitary
 Association, Ahmedabad.
 Miss Piggott, Hyderabad, Sind.
 Dr. Jacob Solomon, Secretary, Sanitary Association, Ahmedabad.
 Dr. J. E. Sandilands, Executive Health Officer, Bombay.
 Miss A. Ward, Hyderabad, Sind.
 Dr. V. V. Mulay, Sholapur.
 Dr. G. G. Naoleker, M.O.H., West Khandesh.
 Dr. M. I. Balfour, Bombay.

CENTRAL PROVINCES.

- Dr. Mucadam, W.M.S., Dufferin Hospital, Nagpur.
 Dr. L. Sen, Medical Officer of Health, Nagpur.
 Dr. M. R. Goverdhan, Medical Officer of Health, Jubbulpore.
 Dr. S. H. Kulkarni, Medical Officer of Health, Amraoti.
 Dr. K. G. Venkateswaran, Mohghat Road, Khandwa.
 Mrs. Tarr, C/o Civil Surgeon, Nagpur.

MADRAS.

- Captain N. R. Ubhaya, Assistant Director of Public Health,
 Madras.
 Dr. Lazarus, Women's Hospital, Vizagapatam.
 Mrs. Organe, Secretary, Maternity and Child Welfare
 Association, Monteith Buildings, Egmore, Madras.
 Mrs. Cousins, Theosophical Society, Adyar.
 Miss. F. A. Feare, L.M.S., Jammalamadugu.

NORTH WEST FRONTIER PROVINCE.

- Mrs. Mitra, Health Visitor, Dera Ismail Khan.
 Dr. Bramsen, Mardan.

PUNJAB.

Pandit Shugan Chand, Hony. Secretary, Lady Chelmsford League, Karnal.
 Dr. Sahani, Hony. Secretary, Lady Chelmsford League, Sialkot.
 Mrs. Dales, Health Visitor, Jullundur.
 Dr. J. L. Kapoor, Health Officer, Ferozepur.
 Mrs. Matthias, Health Visitor, Gujrat.
 Major Puri, I.M.S., Multan.
 Dr. P. N. Seth, District Health Officer, Lahore.
 Dr. Tiwari, Medical Officer of Health, Jullundur.
 Miss Simon, Secretary, Lady Chelmsford League, Lahore.
 Miss Raynor, Superintendent, Health School, Lahore.
 Major Webb, I.M.S., Medical Officer of Health, Simla.
 Miss Walker, Health Visitor, Simla.
 Dr. Curjel Wilson, Jhelum.
 Mrs. Cuthbert King, Gujrat.
 Dr. Crichton Bowser, Rahmatpur Mission Hospital, Palwal.
 Dr. E. L. Young, Pinangwan, Gurgaon District.
 Dr. Houlton, Lady Reading Hospital, Simla.
 Mrs. Das Arora, Lahore.
 Mrs. Buttye, Golf Road, Lahore.
 Dr. R. M. Munro, Women's Medical College, Ludhiana.
 Dr. E. Lewis, Philadelphia Hospital, Umbala City.
 Mrs. Ricketts, Health Visitor, Lahore.
 Dr. Arora, M.O.H., Lahore.

UNITED PROVINCES.

Rai Sahib Jawahar Lal Sinha, Secretary, Child Welfare League, Ghazipur.
 Mr. T. N. Shery, Government Pleader, Muttra.
 B. Ram Bahadur Saksena, Pilibhit.
 Dr. H. S. Dube, Medical Officer of Health, Municipality, Lucknow.
 Dr. Commissariat, W.M.S., Assistant to I. G. C. H., U. P., Lucknow.
 Dr. Thungamma, W.M.S., Ishwari Memorial Hospital, Benares.
 Dr. Twining, Lucknow.
 Mrs. Stubbs, Child Welfare League, Bareilly.

UNITED PROVINCES—(concl'd.)

Dr. M. V. Webb, W.M.S., Women's Medical School, Agra.
 Miss E. G. Bacon, Superintendent, Warner Baby Fold, Bareilly.
 Miss A. Walters, Maternity League, Muttra.
 Mrs. Mattison, Eversleigh, Cawnpore.
 Dr. Halder, Muzaffanagar.
 Mrs. Halder, Muzaffanagar.

INDIAN STATES.

Dr. D. R. Dhanavade, Durbar Surgeon, Kolhapur.
 Major M. V. Phatak, Chief Medical Officer, Gwalior.
 Dr. Talati, Health Officer, Baroda.
 Dr. Jwala Prasad, House Surgeon, Mayo Hospital, Jaipur.
 Dr. Maya Das, Baroda.
 Dr. E. A. Rider, Jubilee Female Hospital, Babawalpur.
 Major Hance, Civil Surgeon, Jodhpur.
 Major A. M. Dickson, I.M.S., Agency Surgeon in Bundelkhand,
 Nowgong, C. I.
 Dr. Mungrey, Lashkar, Gwalior.

ARMY.

Mrs. Godwin, Quetta Staff College.

CEYLON.

Dr. C. V. Aserappa, Chief Assistant to M.O.H., Colombo.

DELHI.

Dr. Sethna, Medical Officer of Health, Delhi.
 The Hon'ble Mr. A. M. Stow, Chief Commissioner, Delhi.
 Miss Graham.
 Miss Griffin.
 Mrs. Symons.
 Mrs. Bhore.
 Mrs. Chatterji.
 Miss Weller.
 The Hon'ble Sir Henry Moncrieff Smith.

DELHI.—(contd.)

- Major-General T. H. Symons, Director General, Indian Medical Service.
- Colonel J. Norman Walker, I.M.S., Surgeon to H. E. the Viceroy.
- Dr. G. J. Campbell, W.M.S., Principal, Lady Hardinge Medical College.
- Lt.-Col. Stanger Leathes, I.M.S., Health Officer.
- Dr. D. Scott.
- Dr. Shroff.
- Rai Sahib Dr. Hari Ram, Municipal Commissioner.
- Mrs. S. R. Das.
- J. N. G. Johnson, Esq., I.C.S., Deputy Commissioner.
- K. C. Roy, Esq.
- J. Coatman, Esq., Director, Public Information.
- Mrs. Richey.
- Mrs. Sultan Singh.
- Mr. S. N. Mukarji, Principal, St. Stephen's College.
- Miss Hodgson, Chief Lady Superintendent, Lady Minto Indian Nursing Association.
- Miss Mitra, Inspectress of Schools.
- Col. Bhola Nauth, I.M.S. (retired), Organising Secretary, Indian Red Cross Society.
- Mrs. Graham.
- Dr. Reubens.
- Lala Ramananda Sanyasi, Secretary, Dalit Uthar Sabha (Hindu Depressed Class Mission).
- L. Ratan Lal, Government High School.
- Sirdar Sobha Singh.
- Mrs. Monk.
- Mrs. Stow.
- Dr. H. Keane.
- Major H. C. D. Rankin, R.A.M.C.
- Miss H. Maya Das.
- Mrs. Parker.
- Mrs. Pennell, M.D.
- L. Raghubir Singh.
- Dr. Sinclair.

DELHI—(concl'd.)

Dr. A. C. Scott, C.M.O., W.M.S.

Mrs. Barstow.

Abdul Rahman, Esq., Vice-President, Municipality.

L. Sri Ram, Vice-President, Municipality.

Mrs. S. C. Gupta.

Mrs. Strathie.

Dr. R. Young, (Secretary).

**LIST OF PLACES IN INDIA WHERE CHILD
WELFARE WORK IS BEING CARRIED ON.**

NOTE :—The attempt has been made to make a complete directory of Child Welfare Work. The compiler is well aware that only partial success has been met with in this attempt. It is exceedingly difficult to make such a list really complete, sometimes returns are faulty and at other times they are not asked for from the society concerned as its existence is not known. It is very desirable that such information should exist and we hope that those whose societies have been omitted from the list will make haste to send us information while accepting our apologies for the omission of their names.

It is a matter of difficulty also to know sometimes what to include in such a list. In some places Maternity Work or *dais'* training is being carried on which must affect the welfare of infants and yet can scarcely be called definite Child Welfare Work. We have included such work wherever possible; and in the case of Bengal it has evidently been a definite policy to work first for the improvement of *dais'* work before attempting definite Child Welfare Work.

The Lady Chelmsford League is desirous of keeping this list up to date and has for the past two years issued circulars for information. It is on this basis that the present directory has been compiled. Further information should be addressed to—

THE SECRETARY,

Lady Chelmsford League,

Old Imperial Secretariat,

DELHI.

BIHAR & ORISSA.

<i>Station.</i>	<i>Body by whom organised.</i>
Patna	Provincial Government.
Balasore	Child Welfare and Maternity Committee.

BENGAL.

<i>Station.</i>	<i>Body by whom organised.</i>		
Calcutta	Indian Red Cross Society. St. John's Ambulance Brigade. Municipality.		
Krishnagar	Nadia Red Cross Society.		
Titaghur	Thomas Duff & Co.		
Burdwan	District Board Dais' Training Centre.		
Panchra	Do.	do.	do.
Purandarapur	Do.	do.	do.
Tilpara	Do.	do.	do.
Haripal	Do.	do.	do.
Bilsara	Do.	do.	do.
Adong	Do.	do.	do.
Raspur	Do.	do.	do.
Domjur	Do.	do.	do.
Joypur	Do.	do.	do.
Baranagar	Do.	do.	do.
Naihati	Do.	do.	do.
Panibati	Do.	do.	do.
Maheshtala	Do.	do.	do.
Nimta	Do.	do.	do.
Shashon	Do.	do.	do.
Habra	Do.	do.	do.
Khantura	Do.	do.	do.
Gohardanga	Do.	do.	do.
Basirhat	Do.	do.	do.
Arbalia	Do.	do.	do.
Bistupur	Do.	do.	do.
Saimana	Do.	do.	do.
Daulatganj	Do.	do.	do.
Godagari	Do.	do.	do.
Narhatta	Do.	do.	do.
Naogaon	Do.	do.	do.
Panchupur	Do.	do.	do.
Gurudaspur	Do.	do.	do.
Narsabpur	Do.	do.	do.

BENGAL—(concl.)

<i>Station.</i>	<i>Body by whom organised.</i>		
Kanaksar	District Board Dais' Training Centre.		
Manikganj	Do.	do.	do.
Mymensingh	Do.	do.	do.
Gopalganj	Do.	do.	do.
Pamora	Do.	do.	do.
Fatikehari	Do.	do.	do.
Kaukinara	Jardine Skinner & Co.		
Decca	Maternity and Child Welfare Trust.		

UNITED PROVINCES.

Fatehpur	Maternity & Child Welfare Association.		
Saharanpur	Do.	do.	do.
Gorakhpur	Do.	do.	do.
Fatehgarh	Do.	do.	do.
Pilibhit	Do.	do.	do.
Jhansi	Do.	do.	do.
Hamirpur	Do.	do.	do.
Bahraich	Do.	do.	do.
Muttra	Do.	do.	do.
Etawah	Do.	do.	do.
Unao	Municipal Board.		
Naini Tal	Do.		
Bareilly	Maternity Association.		
Agra	Infant Welfare Fund.		
Lucknow	Maternity & Child Welfare Association. Municipality.		
Allahabad	Red Cross Centre and Municipality.		
Dehra Dun	Maternity & Child Welfare Association.		
Ghazipur	Do.	do.	do.
Cawnpore	British India Corporation. Municipality.		
Almora	Health and Welfare Society.		
Mussoorie	Maternity and Child Welfare Centre.		
Fyzabad	Do.	do.	do.
Roorkee	Do.	do.	do.
Gonda	District Board do. do.		

BENGAL.

<i>Station.</i>	<i>Body by whom organised.</i>		
Calcutta	Indian Red Cross Society. St. John's Ambulance Brigade. Municipality.		
Krishnagar	Nadia Red Cross Society.		
Titaghur	Thomas Duff & Co.		
Burdwan	District Board Dais' Training Centre.		
Panchra	Do.	do.	do.
Parandarpur	Do.	do.	do.
Tilpara	Do.	do.	do.
Haripal	Do.	do.	do.
Bilsara	Do.	do.	do.
Adong	Do.	do.	do.
Raspur	Do.	do.	do.
Domjur	Do.	do.	do.
Joypur	Do.	do.	do.
Baranagar	Do.	do.	do.
Naihati	Do.	do.	do.
Panihati	Do.	do.	do.
Maheshtala	Do.	do.	do.
Nimta	Do.	do.	do.
Shashon	Do.	do.	do.
Habra	Do.	do.	do.
Khantura	Do.	do.	do.
Gobardanga	Do.	do.	do.
Basirhat	Do.	do.	do.
Arbalia	Do.	do.	do.
Bistupur	Do.	do.	do.
Sainana	Do.	do.	do.
Daulatganj	Do.	do.	do.
Godagari	Do.	do.	do.
Narbhatta	Do.	do.	do.
Naogaon	Do.	do.	do.
Panchupur	Do.	do.	do.
Gurudaspur	Do.	do.	do.
Narsabpur	Do.	do.	do.

BENGAL—(concl'd.)

<i>Station.</i>	<i>Body by whom organised.</i>		
Kanaksar	District Board Dais' Training Centre.		
Manikganj	Do.	do.	do.
Mymensingh	Do.	do.	do.
Gopalganj	Do.	do.	do.
Pamora	Do.	do.	do.
Fatikehari	Do.	do.	do.
Kankinara	Jardine Skinner & Co.		
Decca	Maternity and Child Welfare Trust.		

UNITED PROVINCES.

Fatehpur	Maternity & Child Welfare Association.		
Saharanpur	Do.	do.	do.
Gorakhpur	Do.	do.	do.
Fatehgarh	Do.	do.	do.
Pilibhit	Do.	do.	do.
Jhansi	Do.	do.	do.
Hamirpur	Do.	do.	do.
Bahraich	Do.	do.	do.
Muttra	Do.	do.	do.
Etawah	Do.	do.	do.
Unao	Municipal Board.		
Naini Tal	Do.		
Bareilly	Maternity Association.		
Agra	Infant Welfare Fund.		
Lucknow	Maternity & Child Welfare Association. Municipality.		
Allahabad	Red Cross Centre and Municipality.		
Dehra Dun	Maternity & Child Welfare Association.		
Ghazipur	Do.	do.	do.
Cawnpore	British India Corporation. Municipality.		
Almora	Health and Welfare Society.		
Mussoorie	Maternity and Child Welfare Centre.		
Fyzabad	Do.	do.	do.
Roorkee	Do.	do.	do.
Gonda	District Board	do.	do.

PUNJAB.

<i>Station.</i>	<i>Body by whom organised.</i>
Simla	Municipality.
Lahore	(1) Punjab Health School Training Centre for Health Visitors. (2) Municipality.
Karnal	Lady Chelmsford League.
Campbellpur	(1) Maternity and Child Welfare Centre. (2) Attock Health Society.
Jagadhri	New Zealand Mission.
Jullundur	District Board. Municipality.
Sialkot	Lady Chelmsford League.
Palwal	Baptist Mission.
Rawalpindi	Municipality.
Gurgaon	District Health Association.
Do. District	Do. do.
Rewari (Gurgaon District.)	Do. do.
Ludhiana	Memorial Hospital.
Ferozepur	Lady Chelmsford League.
Gujrat	Red Cross Society.
Amritsar	Municipality.
Multan	Lady Chelmsford League.

BOMBAY PRESIDENCY.

Bombay	(1) Municipality. (2) Bombay Presidency Infant Welfare Society. (3) Bhatia Maternity and Infant Welfare Service.
Karachi	(1) Health Association. (2) Municipality (Maternity Home).
Hyderabad	Dais Improvement Scheme.
Shikarpur	(1) Women's Health and Education Society. (2) Louise Lawrence Civil Hospital Nursing Association. (3) Red Cross Society.

BOMBAY PRESIDENCY—(concl.)

<i>Station.</i>	<i>Body by whom organised.</i>
Larkana	Red Cross Society (Maternity Home).
Ahmedabad	(1) Calico Welfare Department. (2) Women's Council (Welfare Centre).
Broach	(1) The Soonabhai Kharsedji Dalal Parsi Maternity Home. (2) King Edward Maternity Nursing Association.
Nasik	Seva Sadan Nursing Home.
Sholapur	Maternity & Infant Welfare Association.
West Khandesh	Maternity Home.
Belgaum	Civil Hospital Nursing Association.
Bijapur	Maternity and Infant Welfare Centre.
Dharwar	Indian Women's Aid Society.
Alibag (Kolaba District).	Maternity and Infant Welfare Association.
Poona	(1) Seva Sadan Society. (2) Bombay Presidency Infant Welfare Society, Poona Branch.
Satara	K. E. Memorial Maternity Hospital.

CENTRAL PROVINCES.

Nagpur	(1) Municipality. (2) Red Cross Society. (3) Empress Mills.
Jubbulpore	(1) Municipality. (2) Child Welfare Association.
Pachmarhi	Child Welfare Association.
Raipur	Do. do. (and Municipality).
Amraoti	Do. do.
Akola	Do. do.

NORTH WEST FRONTIER PROVINCE.

Dehra Ismail Khan.	(1) Maternity and Child Welfare Centre Committee. (2) Provincial Government (Dais' Training).
--------------------	--

BALUCHISTAN.

<i>Station.</i>	<i>Body by whom organised.</i>
Quetta	Child Welfare and Clinic.

MADRAS PRESIDENCY.

Madras	(1) Maternity and Child Welfare Association. (2) Municipality.
--------	---

Moffusil.

<i>Station.</i>	<i>Body by whom organised.</i>
Sivaganga	Maternity & Child Welfare Association.
Puthiyara	Do. do. do.
Anantapur	Do. do. do.
Vellore	Do. do. do.
Cuddalore	Do. do. do.
Bellary	Do. do. do.
Chinglepet	Do. do. do.
Saidapet	Do. do. do.
Chittoor	Do. do. do.
Coimbatore	Do. do. do.
Erode	Do. do. do.
Cuddapah	Do. do. do.
Rajahmundry	Do. do. do.
Guntur	Do. do. do.
Masulipatam	Do. do. do.
Mangalore	Do. do. do.
Kurnool	Do. do. do.
Kodaikanal	Do. do. do.
Madura (2 centres)	Do. do. do.
Calicut	Do. do. do.
Palghat	Do. do. do.
Nellore	Do. do. do.
Ootacamund (2 centres)	Do. do. do.
Coonoor	Do. do. do.
Virudupattai	Do. do. do.
Mannargudi	Do. do. do.
Tanjore (2 centres)	Do. do. do.
Tinnevely	Do. do. do.

MADRAS PRESIDENCY—(concl'd.)

<i>Station.</i>	<i>Body by whom organised.</i>		
<i>Mofussil (concl'd.)</i>			
Trichinopoly	Maternity & Child Welfare Association.		
Vizagapatam	Do.	do.	do.
Alur	Do.	do.	do.
Alandur	Do.	do.	do.
Madanapalle	Do.	do.	do.
Chandragiri	Do.	do.	do.
Pongarur	Do.	do.	do.
Jammalamadugu	Do.	do.	do.
Aruvankadu	Do.	do.	do.
Kaity	Do.	do.	do.
Nakakal	Do.	do.	do.
Conjeevaram	Do.	do.	do.
Ongole	Do.	do.	do.
Tellicherry	Do.	do.	do.
Mayavaram	Do.	do.	do.
Penukonda	Do.	do.	do.
Tiruchengode	Do.	do.	do.
Dharmapuri	Do.	do.	do.
Palamcottah	Do.	do.	do.

INDIAN STATES.

Jodhpur	The State.
Jaipur	Baby Welfare Committee.
Kolhapur	Child Welfare Association.
Baroda	Shri Maharani Chimmabai Maternity and Child Welfare League.
Gwalior	Maternity Training Centre.
Hyderabad	Child Welfare Association.

DELHI.

Delhi City	(1) Municipality. (2) Baby Week. (3) Lady Reading Health School.
New Delhi	Municipality.

CENTRAL INDIA.

<i>Station.</i>	<i>Body by whom organised.</i>
Indore	Indian Red Cross Society.
Mhow	Baby Welfare Centre.
Nowgong	Maternity & Child Welfare Centre.
Sehore	Sehore Maternity Scheme.

ARMY CHILD WELFARE CENTRES.

A.—British Army.

NORTHERN COMMAND.

PESHAWAR DISTRICT.

Station. *By whom organised.*

- | | |
|------------------------|----------------------|
| 1. Peshawar Cantonment | Voluntary Committee. |
|------------------------|----------------------|

LAHORE DISTRICT.

- | | |
|----------------------|----------------------|
| 2. Lahore Cantonment | Voluntary Committee. |
| 3. Sialkot | Do. do. |

RAWALPINDI DISTRICT.

- | | |
|--------------|----------------------|
| 4. Rwalpindi | Voluntary Committee. |
|--------------|----------------------|

SOUTHERN COMMAND.

C. P. DISTRICT.

Station. *By whom organised.*

- | | |
|----------------|----------------------|
| 5. Jhansi | Voluntary Committee. |
| 6. Pachmarhi | Do. do. |
| 7. Kamptee | Do. do. |
| 8. Mhow | Do. do. |
| 9. Saugor | Do. do. |
| 10. Jubbulpore | Do. do. |

MADRAS DISTRICT.

- | | |
|----------------|----------------------|
| 11. Bangalore | Voluntary Committee. |
| 12. Wellington | Do. do. |
| 13. Madras | Do. do. |

BOMBAY DISTRICT.

- | | |
|-------------|----------------------|
| 14. Colaba | Voluntary Committee. |
| 15. Deolali | Do. do. |

POONA DISTRICT.

- | | |
|----------------|----------------------|
| 16. Belgaum | Voluntary Committee. |
| 17. Ahmadnagar | Do. do. |
| 18. Kirkee | Do. do. |

POONA DISTRICT—(concl'd.)

Station. *By whom organised.*

19. Poona Voluntary Committee.
20. Secunderabad Do. do.

EASTERN COMMAND.

DELHI INDEPENDENT BRIGADE AREA.

Station. *By whom organised.*

21. Delhi Voluntary Committee.
22. Agra Do. do.

U. P. DISTRICT.

23. Lucknow Voluntary Committee.
24. Meerut Do. do.
25. Bareilly Do. do.

P. & A. DISTRICT.

26. Calcutta Voluntary Committee.
27. Jalaphar Do. do.
28. Lobong Do. do.
29. Barackpore Do. do.
30. Dinapore Do. do.

WESTERN COMMAND.

BALUCHISTAN DISTRICT.

Station. *By whom organised.*

31. Quetta Voluntary Committee.

RAJPUTANA DISTRICT.

32. Karachi Voluntary Committee.
33. Hyderabad (Siml) Do. do.

BURMA DISTRICT.

34. Maymyo Voluntary Committee.
35. Rangoon Do. do.

ADEN BRIGADE.

36. Aden Voluntary Committee.

B.—Indian Army.

<i>Station.</i>	<i>By whom organised.</i>	
Quetta	Voluntary Committee.	
Abbottabad	Do.	do.
Delhi N. C.	Do.	do.
Secunderabad	Do.	do.
Sialkot	Do.	do.
Nasirabad	Do.	do.
Mhow	Do.	do.

Other Centres have been opened from whom reports have not yet been received.

MEMORANDUM
OF THE
FINANCIAL DEPARTMENT
OF THE
GOVERNMENT OF INDIA
DURING THE PAST FIVE YEARS,
UNDER
THE ADMINISTRATION
OF
HIS EXCELLENCY THE RIGHT HON'BLE SIR JOHN LAWRENCE,
BART., G. C. B. AND G. C. S. I.

BY
THE HON'BLE SIR RICHARD TEMPLE, K. C. S. I.

JANUARY 1869.

CALCUTTA :
OFFICE OF SUPERINTENDENT OF GOVERNMENT PRINTING.
1869.

CALCUTTA:
PRINTED BY O. T. CUTTIE,
SUPERINTENDENT OF GOVERNMENT PRINTING.

PREFACE.

Instructions having been received in the Secretariat from His Excellency the Viceroy and Governor General, Sir John Lawrence, for the preparation of a report of the financial administration of British India during the past five years, I have deemed it desirable to undertake the task of preparing this report myself.

In India Finance not only embraces financial subjects proper, but is also intimately mixed up with the management of all other departments of the State. It hence becomes difficult to attempt any financial retrospect without entering largely into the affairs of the various branches of the general government of the country. This summary therefore relates not only to the regular administration of the finances, but also to the financial results of the work of all departments.

I have endeavoured, not always successfully perhaps, to report the business actually done in the Financial department without unduly trenching upon the proceedings of other departments. But even then the topics are found to be so very numerous and varied, that lucidity of arrangement is not easy. After some consideration I determined

to divide this extensive subject into four main parts; namely, first, that which relates to *expenditure*, including salaries and establishments, civil and military, of all kinds and all public improvements; second, that which relates to *revenue and resources*, including fiscal measures, taxation, and loans; third, that which relates to *administrative measures connected with finance*, including currency, banks, furlough and leave rules for the several branches of the service, statistics, accounts; fourth, that which relates to *actual income and expenditure*, and the aggregate of financial result. I trust that all the multifarious matters requiring mention will be found naturally to group themselves under one or other of the above main parts or headings.

The following chapters will be found arranged according to this order.

In the part relating to expenditure, a brief account has been given of the numerous augmentations of salary allowed by Government to all those classes of its servants whose means are straitened by the general rise of prices in this country; of the constant expansion of establishments in every direction owing to the growing demand for administrative reform and improvement; of the efforts made for reductions and retrenchment wherever possible, in order to counterbalance in some degree the irresistible tendency to enhancement of expenditure.

In the second part relating to revenue and resources, there is mention of the fiscal improvements introduced into every branch of revenue—

the changes being in almost all instances primarily for the good of the people.

In the third part relating to administrative measures connected with finance, some description is offered of the measures adopted respecting currency, both paper and metallic; of the extension of banking agency; of the preparation of statistics; of the re-organization of the account department; and of the great boon conceded to the civil and military services of India by the new furlough and leave rules.

In the fourth part relating to income and expenditure, there is traced the progress of every item of income and the corresponding progress of every item of expenditure; and then the ultimate balance of income and expenditure is explained, whereby the budget sheet of British India is seen to have about fifty millions annually on each side of the national account, or nearly one hundred millions on the whole.

The mass of business which has devolved, and continues to devolve, on the Financial Department of the Government of India will be perceived to be enormous.

In this exposition, I have specially aimed at *condensation*; and have not hoped to accomplish more than a bare resumé of dry facts. And as these facts are drawn from so wide a field of enquiry, I fear that, despite all the care that could be bestowed, some inaccuracy may have crept in here and there.

I must acknowledge cordially the valuable assistance rendered by Mr. R. H. Hollingbery, one of the Assistant Secretaries in this Department, in the collection and collation of the facts embodied in this report.

The period under review comprises the administration of my two immediate predecessors, Sir Charles Trevelyan and the Right Hon'ble Mr. Massey.

With these prefatory remarks, I have to present this memorandum to His Excellency the Viceroy and Governor General.

R. TEMPLE.

THE TREASURY,
CALCUTTA,
January 5th, 1869. }

CONTENTS.

	PAGE.
PART I.	
MEASURES RELATING TO EXPENDITURE	1
PART II.	
MEASURES RELATING TO REVENUE AND RESOURCES	63
PART III.	
ADMINISTRATIVE MEASURES CONNECTED WITH FINANCE	79
PART IV.	
GENERAL REVIEW OF INCOME AND EXPENDITURE	107

CONTENTS.

PART I.

Page.

MEASURES RELATING TO EXPENDITURE—

CHAPTER 1.—Salaries, Pay, Allowances, and Pensions	...	1
CHAPTER 2.—Establishments, Civil, Military, and Marine	...	16
CHAPTER 3.—Expenses of Special Departments	...	32
CHAPTER 4.—Expenses of Public Works and Improvements	...	48
CHAPTER 5.—Reductions and retrenchment of Expenditure	...	52

PART II.

MEASURES RELATING TO REVENUE AND RESOURCES—

CHAPTER 6.—Ordinary heads of revenue, Land, Customs, Salt, Stamps	...	63
CHAPTER 7.—Special taxation, License Tax, Income Tax	...	72
CHAPTER 8.—Local Funds and local Taxation	...	74
CHAPTER 9.—Loans	...	76

PART III.

ADMINISTRATIVE MEASURES CONNECTED WITH FINANCE—

CHAPTER 10.—Currency, Paper, Gold, Silver, Copper, Mints	...	79
CHAPTER 11.—Banks—Money Order Department, Savings' Banks, Treasuries, Cash Balances	...	84
CHAPTER 12.—Statistics of Trade and Navigation	...	89
CHAPTER 13.—Furlough and Leave Rules	...	91
CHAPTER 14.—System of accounts and constitution of Finan- cial Department	...	92

PART IV.

GENERAL REVIEW OF INCOME AND EXPENDITURE—

CHAPTER 15.—Items of Income	...	107
CHAPTER 16.—Items of Expenditure	...	111
CHAPTER 17.—Aggregate of Financial Result	...	119

SYNOPSIS.

PART I.—MEASURES RELATING TO EXPENDITURE.

CHAPTER I.

SALARIES, PAY, ALLOWANCES, AND PENSIONS.

	PAGE.		PAGE.
Definition of Terms ...	1	INCREASES OF SALARIES AND PAY,—<i>contd.</i>	
1.—INCREASES OF SALARIES AND PAY—		Public Works Department ...	7
In Civil Departments generally ...	1	Educational Department ...	8
District Officers ...	2	Military Officers ...	11
Judicial and fiscal officers ...	2	Medical Officers ...	11
Ministerial Establishments ...	3	Miscellaneous increases ...	13
Lower class of officials ...	4	2.—ALLOWANCES—	
Police ...	4	Travelling Allowances ...	13
Jail Establishments ...	4	Special Allowances ...	14
Inland Customs Department ...	4	3.—PENSIONS—	
Postal Department ...	5	Various classes of Officers ...	15
Electric Telegraph ...	6	Uncovenanted Servants generally ...	15
Survey Department ...	6		
Forest Department ...	7		

CHAPTER II.

ESTABLISHMENTS,—CIVIL, MILITARY, AND MARINE.

1.—CIVIL DEPARTMENT—		New Establishments,— <i>contd.</i>	
Old Establishments, <i>viz.</i> :—		Police ...	24
Covenanted Officers ...	16	Police Superannuation Fund...	25
Subordinate Executive and Ministerial Officers ...	16	2.—MILITARY AND MARINE—	
Revenue Establishments ...	17	Military Establishments ...	25
General Departments, including Secretariats, &c. ...	17	European Army ...	26
New Establishments, <i>viz.</i> :—		Native Army ...	26
Ordinary Civil Administration ...	18	Administrative Departments ...	27
Forest Department ...	19	Pay and Account Departments ...	23
Customs Department ...	20	Malt Liquor—Charges for ...	28
Sudder Distillery Establishments ...	20	Marine Department ...	28
License Tax ...	20	Sea-going Marine, <i>viz.</i> :—	
High Courts ...	20	Bombay ...	28
Civil Courts ...	21	Madras ...	29
Small Cause Courts ...	21	Bengal ...	29
Cantonment Magistrates ...	22	British Burmah... ..	29
Registrars of Assurances ...	22	Inland Steam Service, <i>viz.</i> :—	
Government Advocates ...	23	Bengal	30
Jails ...	23	Punjab	30
Port Blair ...	24	Port Funds	30

CHAPTER III.

EXPENSES OF SPECIAL DEPARTMENTS.

	PAGE.		PAGE.
1.—EDUCATION, SCIENCE AND ART—		POST OFFICE,—continued.	
Direction and Inspection ...	32	District Post ...	38
Colleges ...	33	Postal Communication ...	38
Schools and Teachers ...	33	Indian Carrying Company and Government Bullock Train Agency ...	40
Grants-in-aid and Scholarships ...	34	Overland Communication ...	40
Medical Colleges ...	34	British India S. N. Company ...	41
Survey Establishments ...	35		
2.—POST OFFICE—		3.—ELECTRIC TELEGRAPH—	
Supervision, <i>viz.</i> —		Indian Telegraph ...	41
Inspection ...	36	Indo-European Telegraph ...	42
Accounts ...	36	4.—MEDICAL, POLITICAL AND MISCEL- LANEOUS ...	42
Office Establishments of Di- rection ...	37	5.—PUBLIC WORKS, <i>viz.</i>—	
Post Offices, <i>viz.</i> —		Irrigation Department ...	44
Number ...	37	General Branch ...	45
Office and Delivery Establish- ments ...	37	Office Establishments ...	45
		Railway Department ...	46

CHAPTER IV.

EXPENSES OF PUBLIC WORKS AND IMPROVEMENTS.

Large scheme of Barracks ...	48	Railways ...	50
Loans for reproductive works ...	48	Guaranteed interest ...	50
Special fund works ...	49	Railway from Lahore to Rawul Pindiee ...	51
Civil works ...	49	Municipal Loans ...	51
Net result ...	50		

CHAPTER V.

REDUCTIONS AND RETRENCHMENTS OF EXPENDITURE.

General character of the reduc- tions ...	53	LAW AND JUSTICE,—continued.	
Reductions in expenditure for—		Registration of Assurances ...	56
Land Revenue ...	53	Jails ...	56
Excise ...	54	Police ...	57
Customs ...	54	Education, Science and Art ...	58
Opium ...	55	Medical Services ...	59
Mint ...	55	Marine ...	59
Administration and Public Departments ...	55	Transfer of Charge to Local Funds ...	59
LAW AND JUSTICE, <i>viz.</i>—		Public Works Charges paid in Civil Department ...	62
Courts ...	55	Military Expenditure ...	62

PART II.—MEASURES RELATING TO INCOME AND
RESOURCES.

CHAPTER VI.

ORDINARY HEADS OF REVENUE.

	PAGE.		PAGE.
1.—LAND REVENUE	63	SALT DUTIES IN,— <i>continued</i> .	
		Bengal and Northern and Central	
2.—ABKAREE, OR EXCISE ON DRUGS AND SPIRITS	65	India	68
3.—OPIUM	66	5.—STAMPS, <i>viz.</i> ,—	
		On judicial proceedings	68
4.—SALT DUTIES, <i>viz.</i> , IN—		In other transactions	68
Bombay and Madras	67	6.—CUSTOMS	69
British Burmah	67	7.—POST OFFICE	71
		Service Postage	71

CHAPTER VII.

SPECIAL TAXATION.

Licence and certificate taxes	72	Succession duty	73
Pandhari tax	72	Tobacco tax	73

CHAPTER VIII.

LOCAL FUNDS AND LOCAL TAXATION.

Cesses on Land Revenue	74	Revenue from canal clear-	
One per cent. Income tax fund	74	ances and fisheries	75
Convict Labor Funds	75	Port Funds	75

CHAPTER IX.

LOANS.

Public Debt	76	Debenture Loans	77
New loans	76		

PART III.—ADMINISTRATIVE MEASURES CONNECTED WITH
FINANCE.

CHAPTER X.

CURRENCY.

1.—PAPER CURRENCY, <i>viz.</i> —		2.—METALLIC CURRENCY, <i>viz.</i> —	
Note Circulation	79	Silver	81
Sub-circles	80	Copper	81
Commission to report on		Gold	82
Currency	81		

CHAPTER XI.

BANKS AND TREASURIES.

	PAGE.		PAGE.
1.—BANKS, <i>viz.</i> —		TREASURIES,— <i>continued.</i>	
Agreements with Presidency		Transfer of some to Branch	
Banks ...	84	Banks ...	86
Bank of Bombay ...	85	5.—CASH BALANCES—	
2.—MONEY ORDER SYSTEM ...	85	Reduction of ...	86
3.—GOVERNMENT SAVINGS BANKS ...	85	Advances for Abyssinian expedition ...	87
4.—TREASURIES—		Payments of prize money ...	88
Inspection ...	86		

CHAPTER XII.

STATISTICS.

1.—FINANCIAL STATISTICS ...	89	||	2.—TRADE AND NAVIGATION ...	90
-----------------------------	----	--	-----------------------------	----

CHAPTER XIII.

FURLOUGH AND LEAVE RULES.

REVISION OF FURLOUGH AND LEAVE RULES ...	91
--	----

CHAPTER XIV.

SYSTEM OF ACCOUNTS AND CONSTITUTION OF THE FINANCIAL DEPARTMENT.

1.—CHANGES IN SYSTEM ...	92	ACCOUNTS OF PRINCIPAL DEPARTMENTS,— <i>continued.</i>	
2.—SEPARATE ACCOUNTS FOR MILITARY AND PUBLIC WORKS DEPARTMENTS ...	95	Railways ...	99
3.—HALF-YEARLY ACCOUNT WITH LONDON ...	96	Local Funds ...	100
4.—ABOLITION OF PRE-AUDIT ...	96	6.—MINOR IMPROVEMENTS ...	100
5.—ACCOUNTS OF PRINCIPAL DEPARTMENTS, <i>viz.</i> —		7.—CHANGES AFFECTING COMPARISON WITH PAST ACCOUNTS ...	101
Revenue ...	97	8.—SEPARATE ACCOUNTS FOR—	
Post Office ...	97	The Berars ...	102
Electric Telegraph ...	97	Hyderabad Contingent ...	103
Marine ...	98	9.—REPRODUCTIVE IRRIGATION WORKS ...	103
Mint and Currency ...	98	10.—ORGANISATION OF ACCOUNT DEPARTMENTS, <i>viz.</i> —	
Forest Accounts ...	98	Civil Pay Master converted into Deputy Accountant General ..	104
Public Works ...	99	Departmental Staff ...	105

PART IV.—GENERAL REVIEW OF INCOME AND
EXPENDITURE.

CHAPTER XV.

	PAGE.		PAGE.
1.—ITEMS OF INCOME—		ITEMS OF EXPENDITURE,—continued.	
Land Revenue	107	Salt	112
Tributes and Contributions from		Opium	112
Native States	107	Stamps	113
Forest Revenue	108	Mint	113
Abkaree or Excise	108	Post Office	113
Assessed Taxes	108	Telegraph	113
Customs	108	Allowances to district and village	
Salt	108	Officers	113
Stamps	108	Administration and Public De-	
Opium	108	partments	113
Mint	108	Law and Justice	114
Post Office	108	Police	114
Telegraph	109	Marine	114
Law and Justice	109	Education, Science and Art	114
Marine	109	Ecclesiastical	115
Education	109	Medical Services	115
Interest	109	Stationery and Printing	115
Civil Miscellaneous	109	Political Agencies and Foreign	
Total Revenue	110	Services	115
2.—ITEMS OF EXPENDITURE—		Allowances and assignments under	
Interest—		treaty	115
On funded and unfunded debt	111	Miscellaneous	116
On Service Funds	111	Army	116
Allowances, Refunds, and Draw-		Public Works	116
backs	111	Total expenditure	117
Land Revenue	111	Increase of Expenditure, viz.—	
Forests	112	In India	117
Abkaree or Excise... ..	112	In England	117
Assessed Taxes	112	Diminution of guaranteed in-	
Customs	112	terest	118

CHAPTER XVI.

AGGREGATE OF FINANCIAL RESULT.

Total of Revenues and Charges	119	Explanation of,—continued.	
Explanation of—		Deficit in 1867-68, from liberal	
Deficit in 1864-65 from		P. W. Expenditure	120
casual charges	120	Surplus in 1868-69	122
Surplus in 1865-66	120	Conclusion	125
Deficit in 1866-67 from liberal			
P. W. Expenditure	120		

FINANCIAL ADMINISTRATION.

PART I.

RELATING TO EXPENDITURE.

In this Part will be considered Salaries, Pay, Allowances, and Pensions; Establishments, Civil, Military, and Marine; Special Departments; Public Works and Improvements.

CHAPTER I.

SALARIES, PAY, ALLOWANCES, AND PENSIONS.

The term "salaries" means the emoluments of officers whose appointment is made by Government and notified in the *Gazette*: "pay" those of officials who are appointed by some departmental authority; "allowances" means travelling charges, tentage, and the like. The term "pensions" speaks for itself.

EXPENDITURE.
Definition of terms.

These definitions apply to the Civil Department. In the Military Department the term "pay and allowances" will be used in the ordinary Military sense.

Generally, it is the fact that all "salaries" throughout India for all Civil Departments have been increased, except only those of the Covenanted Civil Service in the older Regulation Provinces. Even in the last named there have been some

Increase of salaries and pay in Civil Departments.

EXPENDI-
TURE.

increases, though these again have been somewhat counterbalanced by reductions. "Pay" has also been universally increased, almost without exception.

District officers.

In the civil administration proper, one of the most important increases has been in the salaries of the district officers, that is, Deputy Commissioners and Assistant Commissioners in the Non-Regulation Provinces, to wit, the Punjab, Oude, the Central Provinces, British Burmah, Assam and some other outlying districts. These officers are almost entirely European. The salary of a Deputy Commissioner used to range from Rs. 1,000 to Rs. 1,500 per mensem, or from £1,200 to £1,800 per annum. It now ranges up to Rs. 1,900 per mensem, or £2,300 per annum. The salary of an Assistant Commissioner used to range from Rs. 400 per mensem to Rs. 600, or from £480 to £720 per annum. It now ranges up to Rs. 800 per mensem, or £960 per annum. The increase for Deputy Commissioners has been about 20 per cent. in the Punjab and the Central Provinces, about 30 per cent. in Oude and the North-West Provinces, and about 40 per cent. in Bengal and British Burmah. For Assistant Commissioners, it has been about 25 per cent. in the North-West Provinces, 30 per cent. in Bengal, 10 per cent. in the Punjab, and 5 per cent. in Oude and British Burmah.

Judicial and
fiscal officers.

The next most important increase has been in the salaries of subordinate judicial and fiscal officers called Deputy Collectors and Magistrates in the Bombay Presidency and the North-West Provinces,

Extra Assistant Commissioners, and Subordinate Judges in the Bengal and Bombay Presidencies. EXPENDITURE.

These officers are partly European, but principally Natives. Their salaries used to vary from Rs. 200, or even less, per mensem, to Rs. 600, or from £250 to £720 per annum. These now go up from Rs. 200 to Rs. 800 per mensem, or from £250 to £960 per annum. The increase on the average has been about 20 per cent. for Deputy Collectors in Bombay, and 10 per cent. for those in the North-West Provinces. For Subordinate Judges the increase has been about 55 to 60 per cent. on the average for all grades, the percentage for the lowest grade, or Moonsiffs, being still higher. The pay of Native Sub-Collectors (Tehseeldars) has been raised in all three Presidencies. It used to range from Rs. 100 to Rs. 200 per mensem, or from £140 to £250 per annum. It will now rise to Rs. 250 and even to Rs. 300 per mensem, or £300 and £360 per annum.

In the ministerial establishments of the courts Ministerial Establishments. and the offices, where the work is conducted in the vernacular languages, the pay has been raised universally. The rates of pay are below those last named; to specify them would be tedious. In general terms they have been increased from 25 to 50 per cent., in some cases even more. The pay of the office establishments, whose work is conducted in the English language, has been increased in all the three presidency towns, and at the seats of most of the local Governments.

<p style="text-align: center;">EXPENDI- TURE.</p> <hr style="width: 100%;"/> <p>Lower class of officials.</p>	<p>The lower class of officials—messengers, orderlies, office servants, and the like—have also had their pay increased, chiefly in the older provinces, by 20 to 40 per cent. on the average. For instance, one who got Rs. 5 per mensem now gets Rs. 6 or 7, one who got Rs. 4 now gets Rs. 5, and so on.</p>
<p>The Police.</p>	<p>In the Police Department there has been some increase to the salaries of the European officers called District Superintendents, in Madras, the North-West Provinces, and some of the Non-Regulation Provinces. The pay of the upper native officers of the Police has been raised in Bengal Proper, in the North-West Provinces, and in the Bombay Presidency. The pay of such native officer, called Inspector, used to vary from Rs. 80 to Rs. 150 per mensem; it now rises up to Rs. 200 per mensem, or £240 per annum, and sometimes up to Rs. 250 per mensem, or £300 per annum. For the rank and file of the force now called constables, the pay has been increased for all provinces save the Punjab and Oude (where it had been previously revised). The pay of a policeman in India used to be from Rs. 5 to Rs. 7 per mensem. It is now from Rs. 6 to Rs. 9. In Burmah it is higher still.</p>
<p>Jail Establish- ments.</p>	<p>A proportionable increase has been granted to warders and turnkeys in the jails; and the pay of jailors also has been raised throughout the three presidencies, excepting the Punjab, where it had been revised in 1861-62:</p>
<p>Inland Customs Department.</p>	<p>In the Inland Customs Department of Northern India the salaries of Collectors and Patrols</p>

(European) have been raised by about 20 per cent.; the pay of Native Superintendents and their men has been raised much in the same way as that of the police in Lower Bengal and Madras. The Preventive Establishment in these latter territories had been previously incorporated with the police, and has participated in the increase allowed to that department. In the Sea Customs the salaries of Collectors of Customs, British Burmah and Kurrachee, are being improved, and those of Assistant Commissioners of Customs, Bombay, have been increased. The pay of preventive and wharf officers in the Custom Houses of Calcutta, Bombay, Rangoon, and Moulmein has also been raised by 20 or 25 per cent. and upwards.

EXPENDI-
TURE.

In the Postal Department throughout India there has been an increase of salary and pay of all grades, from the Post Master General to the delivery messenger and line runner. The salaries of Post Masters at the three presidency towns, and of Chief Inspecting Post Masters at the headquarters of minor administrations, have been increased from Rs. 600 or Rs. 700 to a maximum of Rs. 1,000 per mensem, or from £720 to £1,200 per annum. The pay of other Post Masters and of Deputy Post Masters in the three presidencies, has been increased generally by 30 to 40 per cent. upon previous rates, with an exceptional increase of 75 per cent. for Deputy Post Masters in the North-West Provinces, and of 65 per cent. for those in the Madras Presidency.

The Postal Dept.

EXPENDITURE.

In the Bombay Presidency the salaries have, in numerous instances, been raised by 100 to 200 per cent. or more. The messengers used to receive from Rs. 5 to Rs. 7 per mensem; they now receive at the maximum from Rs. 9 to Rs. 12. The pay of the runners has been raised from Rs. 4 and 5 to Rs. 5 and 6 per mensem.

The Electric
Telegraph.

In the Electric Telegraph Department throughout India the salaries of Superintendents used to rise up to Rs. 700 per mensem, or £840 per annum; they now rise to Rs. 1,500 per mensem, or £1,800 per annum. That of Assistant Superintendents was formerly Rs. 300 per mensem, or £360 per annum: it now rises to Rs. 450 per mensem, or £540 per annum. The pay of signallers has been raised by about twenty per cent. It ranged formerly up to Rs. 150 per mensem, or £180 per annum; it now ranges up to Rs. 195 per mensem, or £235 per annum.

The Survey Dept.

In the Trigonometrical and Topographical Surveys, and the Revenue Survey of the Bengal Presidency, there has been a general increase of salary and pay. The Surveyors, chiefly military, now receive staff pay up to Rs. 800 per mensem, or £960 per annum, whereas they used to receive only Rs. 600 per mensem on the average, or £720 per annum. The Assistant Surveyors used to receive a staff pay of Rs. 250 per mensem, or £300 per annum; they now rise to Rs. 375 per mensem, or £450 per annum. With the Surveyor and Assistant Surveyor the above staff salaries are exclusive of

military pay, within a fixed maximum of aggregate emoluments. For the Executive Establishment, chiefly European, the maximum has risen from Rs. 600 per mensem, or £720 per annum, to Rs. 900 per mensem, or £1,080 per annum. The Sub-Surveyors, entirely native, now receive pay ranging up to Rs. 110 per mensem, or about £130 per annum, having been benefited by about 20 per cent. Increases have also been allowed in the Geological Survey.

EXPENDITURE.

The salaries of officers in the Forest Department of the Bengal and Bombay Presidencies have been raised, generally, by about 20 per cent.; and in order to hold out adequate prospects to those who are being trained for the department in the Forest Schools of France and Germany, and to other classes of candidates, a further increase of salary, involving an additional charge of £5,000 a year, has been recommended to the Secretary of State. The pay of subordinates in the department has also been raised.

One of the most important increases has been in the Public Works Department. The scale of salary has been increased for Civil Assistant Engineers and for Civil Superintending Engineers, while both Civil and Military Engineers have benefited by a re-adjustment of the proportions of the several grades, which has increased the strength of the upper and reduced that of the lower. A corresponding increase has been given to Controllers and Assistant Controllers of Public Works Accounts. The Upper Subordinates have

The Public Works Dept.

EXPENDI-
TURE.

been benefited by abolishing the grade of Assistant Overseer for Military Subordinates (who now enter as Overseers), increasing the proportions in the higher grades for Military and Civil Upper Subordinates, and giving an extra allowance of Rs. 30 a month to those in charge of Sub-Divisions as Disbursers. The pay of Lower Subordinates has been increased by 30 per cent. That of Accountants and Clerks has been fixed on a progressive scale in which the maximum is about 20 per cent. greater than former pay. Furthermore, liberal Presidency allowances for service in the three Presidency Towns, amounting (exclusive of Presidency house-rent) to Rs. 150 a month in several instances, have been given to various grades of officers.

The Educational
Department.

The increases of salary and pay in the Educational Department throughout India may be stated under the heads of—

- 1st.—A supervising staff of Director and Inspectors, and of Principals and Professors of Colleges.
- 2nd.—Normal schools, high schools, and zillah schools.
- 3rd.—Anglo-vernacular schools under Government management, and superior vernacular schools; also model vernacular schools in tehseels and subdivisions.
- 4th.—Vernacular schools for the mass of the people.

Under the first head a liberal increase of salary was sanctioned in 1865 for the Educational Department, Bengal, Lower Provinces, where the higher class of education is farther advanced and more generally diffused than in other parts of India. The salaries are on a progressive scale. That of the Director which was fixed at Rs. 2,000 now rises to a maximum of Rs. 2,500 per mensem, or £3,000 per annum; those of the Principal, Presidency College, and Inspector, 1st grade, which were Rs. 1,300 and Rs. 1,200, are now at the maximum at Rs. 1,500 per mensem, or £1,800 per annum; those of the remaining Inspectors on Rs. 900 and Rs. 1,000, and of Principals in Mofussil Colleges and of Professors in the Presidency College, which ranged at Rs. 700 and Rs. 800, now range at the maximum at Rs. 1,000 and Rs. 1,250, or £1,500 per annum; those of Assistant Professors in the Presidency College and of Professors in Mofussil Colleges which ranged at Rs. 500 and 700 per mensem, or £840 per annum, now range at the maximum at Rs. 750 and Rs. 1,000, or £1,200 per annum. For other provinces of the Bengal Presidency and for the Madras and Bombay Presidencies, a scheme has been approved for extending to them the Bengal scale, with only such slight modifications as their somewhat different circumstances necessitated. The additional cost of the extension will be Rs. 1,60,000, or £16,000 a year.

The pay of Head Masters and Teachers in normal schools in all parts of India, in high schools and

EXPENDI-
TURE.

zillah schools in the Madras and Bombay Presidencies, and in zillah schools in the North-Western Provinces, Punjab, Oude, and the Central Provinces, has also been increased. Sanction to a general revision of pay in the zillah schools of the Lower Provinces of Bengal only awaits the submission of a scheme which has been called for for dividing these schools into classes, fixing a standard yet flexible scale of charge for each class of school, and defining the portions of that charge which should be made good from schooling fees and from the general revenues respectively.

The grant-in-aid schools under Government management are peculiar chiefly to the Bombay Presidency, where the pay of the teachers in these schools has been raised commensurately with the increases accorded to clerks and others in the revenue department. In other provinces, such schools, *i. e.*, Anglo-vernacular schools, maintained on the grant-in-aid principle, yet under Government management, are generally those in which English classes have been grafted on the model tehsilee schools. Here, too, as well as in the tehsilee schools, the pay of teachers has been raised in all the provinces where the schools exist.

The last class of schools, *viz.*, the vernacular schools for the masses, are maintained chiefly from the educational cess. In Bengal, where this resource does not exist, the stipends of the teachers have been raised, but the extension of the system has been restrained till adequate local revenue shall have been provided for meeting the expense.

In the higher military salaries there has been hardly any increase during the past five years. Just before the commencement of this period there was a complete revision of all these salaries consequent on the formation of the Staff Corps. The new scale of salaries took effect in November 1863, and nothing further in this way has been since required. But regimental pay has been increased liberally for Medical Officers, Veterinary Surgeons, Warrant officers, both military and medical, and European non-commissioned officers and rank and file of the Army and in departments. The half batta regulations by which European officers,—commissioned, warrant and non-commissioned,—and European privates, were restricted to a less rate of pay within 200 miles from the Presidency town than when serving beyond that distance have been rescinded; the family allowance to the European soldier for his wife has been increased by three rupces a month, or sixty per cent.; the good conduct pay of the native soldier has been improved; his furlough pay has been raised, and a heavy additional charge has grown up for compensation to native soldiers for dearness of articles of food. In the Staff Corps the extensive promotion of officers to the higher ranks has operated in the same way as a liberal increase of pay.

The Medical Department, being partly civil and partly military, may be treated as a whole. The increase of salaries for the European officers took place in the military branch in November 1864, and in the

EXPENDITURE.

Military Officers.

Medical Officers.

EXPENDI-
TURE.

civil branch in November 1866. A considerable increase of pay in the British medical service having disturbed the relation between British pay and Indian pay and allowances for medical officers, the due proportion between them was re-established by these increases. On the whole, the practical effect has been an increase of about 75 per cent. The measure, expensive in itself, has been rendered more so by the new rule of promotion of covenanted officers of the Indian Medical Department after fixed periods of service, whereby the number in the upper ranks has been considerably increased. As a partial set-off a number of the minor medical charges have been constituted extra charges of regimental medical officers at the same station, or have been transferred from covenanted to uncovenanted medical officers, the salary of the last mentioned class being improved at the same time; whereas an uncovenanted medical officer formerly received Rs. 300 to Rs. 450 per mensem, or £540 per annum, his pay now begins at Rs. 350 and rises to Rs. 900 per mensem, or £1,080 per annum.

The next grade is that of Sub-Assistant Surgeons. In the Bengal Presidency, excepting British Burmah, the pay of this class has sufficed for the requirements of the service; but in British Burmah, it has been increased by Rs. 50 a month, or £60 a year, or by 25 to 50 per cent. on the several grades of pay. In the Bombay Presidency the pay of Sub-Assistant Surgeons in important charges has been increased by 75 to 100 per cent.

The maximum pay of Native Doctors or Hospital Assistants has been raised for those who know English, and have been professionally educated, from Rs. 35 to Rs. 60 a month, or by 70 per cent., and for those who do not know English from Rs. 25 to Rs. 40 a month, or 60 per cent.

There have also been miscellaneous increases, such as the revision of salaries on the reorganisation of the Kattyawar Agency, improved emoluments of Political Residents and Agents, and of other officers in the Political department throughout India, of Secretaries of Chief Commissioners, of officers in detached appointments, such as the Superintendents of Coorg and the Terai Pergunnahs, the Collector of Bombay, the Advocate General and Government Solicitor, Bombay, the Superintendent of stamps and excise in Oude, &c.

Under the head of allowances, the principal increase has been under travelling allowances, arising from various causes, *viz.* :—

1st.—An increase of rates in improving the general condition of the officers of a department, such as the Survey Department, Bengal Presidency, the Geological Survey, the Postal and Telegraph Departments, the Police Department, Bombay Presidency, the Customs Department, Northern India, the Forest Department.

2nd.—Increase of rate for particular classes on account of special dearness in certain

EXPENDI-
TURE.

localities, such as in the Bombay Presidency (where the general rate of travelling allowance for ministerial establishments has been raised), in the Berars, in a portion of the Central Provinces, Assam, part of the Madras Presidency, &c.

3rd.—Special payments, such as for transit of horses and camp equipage for Police officers, by sea, and for Police, Survey, Telegraph, Public Works, and certain other classes of officers by railway.

The following grants may also be mentioned :—

Special
allowances.

1st.—Conveyance allowance of Rs. 50 or Rs. 100 a month to Episcopalian and Presbyterian Chaplains at large stations in the three Presidencies.

2nd.—Rewards for proficiency in the native languages. These ranged formerly at Rs. 800 and Rs. 1,600, or £80 and £160; they now range at Rs. 1,000 to Rs. 4,000, or £100 to £400. They were denied formerly to uncovenanted officers, but are now extended to certain classes of them in the civil administration.

3rd.—An allowance for dearness of living in certain provinces,—such as the Bombay Presidency, from 1864 until its supersession by a general revision of pay; in Assam for particular departments, where it is still paid; in Orissa and

the Central Provinces, where it was given temporarily. EXPENDITURE.

4th.—Loans of moderate amount to civil officers in newly organized provinces for the building of dwelling houses, also to military officers, for the same purpose where houses are not available.

Under the head of pensions, those of covenanted medical officers, of Episcopalian and Presbyterian Chaplains, and of warrant officers have been improved. For barristers employed in the judicial department, or in offices requiring legal training, a special scale of pensions, admissible after comparatively short periods of service, has been established, while the actual pension of all other uncovenanted officers and ministerial establishments has also necessarily risen with their salaries or pay. Pensions to various classes of officers.

In addition, a scheme awaits the approval of the Secretary of State, by which pension will be graduated for the uncovenanted servants of Government according to length of service, beginning at a pension of one-sixth of salary for ten years' service, and rising by one-sixtieth of pay for each year of service to a half pay pension without a medical certificate for thirty years' service, the periods being reduced for certain classes of officers who may enter Government service on a salary of £600 a year or upwards at the age of 25 or upwards. This measure, if sanctioned, will prove a great boon to the uncovenanted service. To uncovenanted servants generally.

CHAPTER II.

ESTABLISHMENTS—CIVIL, MILITARY, AND MARINE.

EXPENDITURE.	It will be convenient to consider the modifications of expenditure for civil establishments in the main divisions of 1st, Ordinary Civil Administration; 2nd, Special Departments, which will fall into Chapter III.
Modifications of expenditure for Civil establishments.	In the first may be included— a. Principal revisions of old Establishments. b. New Establishments.
Old establishments.	Under ordinary civil administration a principal increase is in the strength of covenanted officers.
Covenanted officers.	In the older provinces of the Bengal Presidency, and in the Madras and Bombay Presidencies, this has been effected by the ordinary means of recruiting the strength of the covenanted Civil Service. In the Non-Regulation Provinces of the Bengal Presidency, it has resulted from additions of Assistant Commissioners to make up the strength required for the actual work, and by the further provision of a reserve for absentees.
Subordinate executive officers and ministerial establishments.	Among ministerial and subordinate executive establishments, the principal revisions of old establishments are those which, as already stated, accompanied a revision of pay, and which accordingly have been mentioned in the notices of increase of pay.

- The further revisions which may be mentioned are—
- 1st.—Of Settlement establishments, involving additional charge.
- 2nd.—Of Account and Treasury establishments in districts, consequent on the new system of accounts, and the supersession, more or less, of vernacular by English accounts in the sudder treasuries. (This has been provided in a great measure without additional charge).
- 3rd.—Of establishments for the collection of the revenue from Customs, Salt, and Stamps, at the Presidency towns.
- 4th.—Establishments of the Opium Agencies (involving a large reduction of expense).

EXPENDI-
TURE.
Revenue estab-
lishments.

In short, there has been a revision of all revenue establishments, besides those permanently retained for the land revenue and magisterial work of districts which are included in the mention of the revisions of pay.

The establishments of the Calcutta and Bombay Mints have also been increased consequent on an increase of their coining power. All the Secretariat establishments of the Government of India, and those of the Governments of Madras, Bombay, and Bengal, have undergone revision. All the Civil Account office establishments have been revised to adapt their working to the new system, but this has been effected at a saving of expense. Dispensary establishments have been revised, but they may be more fitly considered under new establishments.

General depart-
ments, including
Secretariats, &c.

EXPENDI-
TURE.

Expenditure for
new establish-
ments.

Ordinary civil
administration.

NEW ESTABLISHMENTS, ORDINARY CIVIL ADMINIS-
TRATION.—Under this head the principal expense
has arisen from the following measures, *viz.* :—

1. *Bombay Presidency* :—The formation of
several additional districts.

2. *Madras Presidency* :—The formation of one
additional district.

Bengal Presidency.

3. Lower Provinces—

a. The formation of the districts of the
Bhootan Dooars.

b. Administration of the Naga Country
on the north-east frontier of
Assam.

c. An additional Assistant Commissioner
for the Garrow Hills, and new sub-
divisions in Cachar and Assam.

d. Administration of the Hill Tracts in
Chittagong.

e. Administration of the frontier to-
wards British Burmah.

f. Increase of sub-divisions of zillahs or
districts, and consequent increase
of Covenanted Assistants and De-
puty Magistrates and Collectors.

g. Improvement of the Calcutta Medical
College.

4. North-Western Provinces—

a. The formation of an additional district
of Bustee out of the Goruckpore
District.

- | | |
|---|--------------|
| <ul style="list-style-type: none"> <li style="margin-left: 2em;"><i>b.</i> Improved administration of Nynee Tal and the Terai Pergunnahs. <ul style="list-style-type: none"> 5. Central Provinces— <ul style="list-style-type: none"> <i>a.</i> The addition of the Nimar district. <i>b.</i> Arrangements for improving remote tracts in the Chanda district. <i>c.</i> Medical School at Nagpore. 6. British Burmah: additional strength to the ordinary civil administration; also two lunatic asylums. | EXPENDITURE. |
|---|--------------|

In addition to the foregoing a large expenditure has been incurred for Settlement establishments in the Punjab, North-Western Provinces, Oude, the Central Provinces, Scinde, and British Burmah, while the Settlement establishments of the Madras and Bombay Presidencies and of Bengal have also been maintained in efficiency.

FOREST DEPARTMENT.—The measures, under this Forest Department. head, during the last five years, may be briefly described as embracing the formation of a Forest Department in Bengal for the conservancy of the forests in the Dooars, the re-organisation of forest establishments in Bombay and the North-Western Provinces, so as to bring their forests under a regular system of administration, and the extension and enlargement of the Forest Department in Madras, British Burmah, the Central Provinces, the Punjab, Oude, and Coorg, till at length (the time having arrived) proposals are now before the Secretary of State for India for recruiting the Forest Department of the Bengal Presidency, and eventually of

EXPENDITURE.	British India, by persons trained chiefly in the forest departments of France and Germany.
Customs establishments.	CUSTOMS. —Under Sea Customs the Customs establishments at the three Presidency Towns and in the ports of British Burmah have been revised and strengthened. The salt and customs establishments of the Line in Northern India have been considerably increased. The line has been carried round the west and south of the Central Provinces to a point in the eastern districts, and also between the province of Berar and the Bombay Presidency.
Sudder Distillery establishments.	ABKAREE EXCISE. —Under the sudder distillery system the duty on spirits is levied at the still, at the time of withdrawal of the liquor for sale. This system superseded the previous farming system in the North-Western Provinces in 1863, and in the greater part of the Lower Provinces, Bengal, in 1861 to 1863. During the period under review it was extended to the remainder of the Lower Provinces, Assam excepted, and was introduced throughout the Central Provinces, the Punjab, and experimentally in parts of the Bombay Presidency, at some expense in the aggregate for sudder distillery establishments.
Establishments for collecting License Tax.	LICENSE TAX. —The requisite establishments for collecting this new tax have been provided for the several Presidencies and Provinces.
Establishments of the several High Courts.	JUDICIAL DEPARTMENT. —This Department may be considered under the heads of— <ol style="list-style-type: none"> 1. High Court, or Chief Court.

- | | |
|------------------------------|-------------------|
| 2. Ordinary Courts. | EXPENDI-
TURE. |
| 3. Special Courts. | ----- |
| (a).—Recorders' Courts. | |
| (b).—Small Cause Courts. | |
| (c).—Cantonment Magistrates. | |

4. Registration Department.

The High Courts at the three Presidencies were established before the period under report, but the office and court establishments under the Judges of these Courts in the three Presidency Towns have been revised within this period. A High Court has been established in the North-Western Provinces, a Chief Court in the Punjab, a Judicial Commissioner's Court in Scinde. The ministerial establishments of these several Courts have been revised.

The number of the ordinary Civil Courts has been generally increased in the higher and reduced in the lower grades; that is to say, additional Judges have been allowed in Bombay (including Scinde), Bengal, the Punjab, and Madras, while the number of Subordinate Judges of the lower grades has been reduced partly by revision of jurisdiction, partly by the creation of Small Cause Courts, and partly by vesting Principal Sudder Ameens with the powers of Small Cause Judges.

Among special Courts, the Recorder's Court at Rangoon has been reconstituted, and a Recorder has been allowed for Moulmein. The establishments of the Small Cause Courts in the Presidency Towns of Bombay and Calcutta have been strengthened, and

EXPENDI-
TURE.

their pay, as well as the salaries and number of the Judges, have been increased. The Small Cause Courts in the Lower Provinces of Bengal have been reduced in number, by doubling up jurisdictions under itinerant Judges of Small Causes, while the enrolment of the Mofussil Small Cause Judges and the Principal Sudder Ameens, Bengal, in one list for promotion, has improved the general scale of salaries. In Lucknow a Small Cause Court has been established, and in the Punjab, British Burmah, the Central Provinces, and the Bombay Presidency similar Courts have been improved by providing better salaries for a superior class of Judges.

Cantonment
Magistrates.

Formerly the Cantonment Magistrates were on a semi-military footing; but to secure proper qualifications for the office, the salary of the appointment has been revised and fixed in two grades, and the appointment has been merged in the non-regulation part of the ordinary civil administration of each province, so as to provide better prospects for the incumbents. The class of these Judges being thus improved, their Courts have been raised to a superior status.

Registration of
assurances.

The Act for the registration of assurances has been extended to all parts of British India, excepting British Burmah and Oude, at an outlay which apparently augments the expenditure under Law and Justice, but which is set off by equivalent receipts, so that the facilities in the administration of justice, eventually accruing from the operation

of this Act, will be secured without any charge on the general revenues. In Oude, a system of registration exists independently of this Act.

Owing to the general increase of prosperity and of the value of land, it has been found necessary, in the interests of the public revenue, to provide a Government Advocate or Pleader for the Local Governments or Administrations in the North-Western Provinces, the Punjab, the Central Provinces, British Burmah, and Scinde.

JAILS.—Under this head the only province which had not been previously provided with an Inspector of Prisons, *viz.*, British Burmah, has been allowed one; and in all Provinces, in the three Presidencies, the controlling staff has been strengthened by the formation (which is still in progress) of central jails under medical officers of standing. The number of district jails also has been nearly everywhere increased, every such increase entailing a fresh expenditure for establishments. In the Bengal and Bombay presidencies, the executive charge, in addition to the medical charge, of district jails, has been made over to medical officers on an extra allowance, but not, as a rule, in the Madras presidency. Wherever this executive charge has been thus withdrawn from the Magistrate, an English writer has been given to each jail. The class of jailors also has been improved by better pay, and by a share in the profits of prison manufactures. The establishment of turnkeys, work instructors, and warders has also been put on an

EXPENDI-
TURE.Government Ad-
vocates.

Jails.

EXPENDI-
TURE.

efficient footing; a more expensive scale of clothing and diet for prisoners has been adopted, and the only partial set-off to these expenses has been in the reduction of the strength of guards, partly by general revision, partly by the introduction of intramural labor, and partly by the substitution of a limited proportion of convict warders for paid warders.

Port Blair.

In connexion with jails may be mentioned the penal settlement of Port Blair. The charges of this settlement have grown with the increase of prisoners, who are no longer sent to the Straits Settlements. Consequent on this increase the administration of Port Blair has had to be strengthened in its European supervision and establishments; and in its police, though some set-off was obtained for the latter by the withdrawal of the naval brigade. These increases are partially counterbalanced by a diminished expenditure of stores.

Police.

POLICE.—The strength of the police in British India was fixed on general considerations before the period under report. It has been reduced in the past five years by revisions in the North-West Provinces, Bombay, and the Central Provinces, and increased slightly in Madras, in Port Blair, British Burmah, and Bengal. The increase in Bengal was caused chiefly by the formation of a salt preventive police for the coast districts, and specially for the salt districts in Orissa; also by the entertainment of police for the north-east frontier, the Bhootan Dooars, the hill tracts near Chittagong, and on the frontier towards British Burmah.

There have been further arrangements attended with a large expenditure which has been debited wholly, or in great part, to other branches, such as Railway Companies, Municipalities, and the like, *viz.* :—

EXPENDI-
TURE.Additional
expenditure.

1st—The formation of a railway police in the Bombay and Bengal Presidencies, which has been found essential to the security of traffic and the prevention of crime.

2nd—The incorporation of municipal police in the civil constabulary in the Bengal and Madras Presidencies.

3rd—The formation of the Kattywar police corps.

The police expenditure has been affected further by the transfer of the greater portion of the charges of the police in the three Presidency towns to the municipal rates in those towns.

As a set-off to these increases considerable relief will be afforded, for the term of more than one generation, by the abolition of the Police superannuation fund, Government undertaking to pay the pensions; which measure will ensure a reduction of the gross pay of head constables and constables without diminishing their net pay.

Police Super-
annuation Fund.

MILITARY AND MARINE.—The military establishments may be adverted to under two heads: *firstly*, those included in the army itself, or combatant; and, *secondly*, those connected with the army, or non-combatant.

Military Estab-
lishments.

The great changes, chiefly reductions, in the combatant establishment of the army, which have

**EXPENDI-
TURE.**

occurred since the financial troubles of 1857-58 were carried out before the commencement of the period under report. But some changes have been brought out within this period. These may be noted as follows.

**In European
Army.**

In the European portion of the Army, there has been reduction as follows:—In the Artillery, seven field batteries have been reduced, and five heavy and light field batteries have been converted into garrison batteries, while three garrison batteries have been thrown off the Indian establishment by the transfer of the Straits Settlement to the Colonial department of the British Government. In the cavalry, the Lahore Light Horse has been disbanded, and the eleven regiments on the Indian Establishment have been reduced by 56 troopers each. In the Infantry, three regiments have been reduced, and the establishment of Privates, in the remaining 52 regiments, has been diminished by sixty per regiment.

In Native Army

In the Native Army, the following reductions have been effected:—A horse battery in Madras was broken up in 1865, and the Assam battery is under orders to be broken up; one regiment of native cavalry was reduced in Bombay in 1865, and the Bengal native cavalry regiments under the Commander-in-Chief were reduced in the same year by 36 troopers each. The establishment of native infantry regiments remains unaltered, excepting a recent addition of 50 men to each of the Punjab Irregular Regiments; but the Military

estimates have been relieved from the charge for three infantry regiments, *viz.*, for two in the Straits, and for one in China. The organization of the Madras Native Infantry and Cavalry has been assimilated with that in the other Presidencies.

EXPENDI-
TURE.

Besides these changes in the number and the organisation or strength of regiments and batteries, there have been some modifications in the administrative departments of the Army. In the Commissariat the changes have been slight; the officers in the Bombay Commissariat have been re-classified, and a number of probationers, who form also the chief reserve against absentees, has been added to the department in the three Presidencies. In the Ordnance department an arsenal in the Bombay Presidency, and a buff leather manufactory in the Madras Presidency, have been abolished, but, on the other hand, a harness manufactory has been established in the Bombay Presidency. The gun-powder manufactories in Madras and Bengal have been remodelled, and Civil master armourers have been provided for the department. In the Barrack department, the Bengal and Bombay arrangements of Barrack Masters for barrack divisions have been extended to the Madras Presidency. In the Medical department, and the cognate branch of sanitation, a Sanitary Commissioner has been appointed, and Lock Hospitals have been provided for each of the three Presidencies, and, on the other hand, a medical store depôt has been abolished in the Bombay Presidency and a general hospital and a depôt

The administra-
tive Departments
of the Army.

**EXPENDI-
TURE.**

hospital in the Bengal Presidency. In the general staff a Director of gymnastics has been appointed.

**Pay and Account
Departments.**

In the Departments of Pay and Account, the Military Finance department or Commission has been abolished and replaced by an Account Department attached to the Secretariat of the Government of India. Furthermore, several pay offices in the Madras Presidency, and a pay circle and a pension pay office in the Bombay Presidency, have been abolished. The office establishments in the Pay and Account department in the three Presidencies, and for heads of departments and Army Head Quarters staff, have been revised throughout in the Bengal Presidency, and almost entirely in the Bombay Presidency.

**Charges for malt
liquor.**

Among changes which affect a comparison of the present military charges with those of former years, may be mentioned the transfer from the Indian to the Home accounts of an annual charge of about 40 lakhs, or £400,000, for malt liquor, and the cessation of further charge in this country for the passage of troops to and from England, owing to the establishment of a special overland transport service which is charged for in the Home accounts.

**Marine Depart-
ment.**

In the Marine department there was a general revision of establishments in 1861 and 1862-63-64, or before the period under review. The largest reduction had been effected by the abolition of the Indian Navy. By that measure the sea-going marine of the Bombay Presidency ceased to be under martial law. It was arranged that the defence, and

the maritime police and surveys, of the Indian seas and coasts should be undertaken by the royal navy. For these reasons orders had been issued in 1863-64 for a second reduction of the Bombay marine establishments. But in the five years under review, much of this second reduction was stayed, firstly, because the Royal Navy had not yet taken up various services at Aden, in the Persian gulf, and on the African coast, which had been performed by the Indian navy; secondly, by reason of the requirements of the Indo-European Telegraph, and thirdly, owing to the retention of floating batteries at Bombay pending the completion of fortifications, and the employment of some vessels in the construction of the harbour defences. The formation of an overland transport service for the reliefs, and for the invalids and recruits, of the European Regiments in India, has also added to the expenditure for the administrative staff at Bombay and Aden, and to the dockyard expenditure at Bombay.

EXPENDI-
TURE.

In the Madras Presidency, the only marine es-
tablishments are those at the several ports; there
are no vessels beyond a steam tug for the Paumban
channel, which began to be employed in the period
under review.

Marine estab-
lishments in
Madras.

In the sea-going marine of the Bengal Presi-
dency, there has been a slight increase on account
of the service of the settlement of Port Blair.

Sea-going
Marine of
Bengal.

In British Burmah, the Irrawaddy flotilla and the
Rangoon dockyard were sold, and light-houses,

Marine Depart-
ment in British
Burmah.

**EXPENDI-
TURE.** with tenders for keeping up communication with the main land, were established for the coasts of British Burmah, in accordance with decisions passed by Government before the period under review. The surveys of the Rangoon river, and of the coast of Chittagong in Bengal, have also added to the marine charges.

**Inland Steam
Service in
Bengal.**

In Bengal, the inland Steam Service had been reduced in 1863-64, but consequent on the Bhootan war, the requirements of Assam, and the transport of opium and malt liquor by steamers since 1866, the flotilla was considerably enlarged till the present year, when it was determined to transport beer and opium by railway. Besides these alterations in the number of vessels, there has been a large expenditure in the repairs of some vessels and the replacement of other vessels, which had been worn out, or which were lost in the cyclones of 1864 and 1866. The staff of the Marine department at Calcutta has also been increased.

**Inland Steam
Service in the
Punjab.**

In the Punjab, an inland Steam Service for the navigation of the Indus from Sukkur to a point below Attock has been strengthened. Though the earnings of the flotilla fall considerably short of the expenses, yet they have progressed steadily, and the powindahs or land-carriers from Afghanistan are beginning to use the line of Government steamers as a link in their communications with Scinde.

Port funds.

The foregoing remarks relate to the general marine expenditure; in addition, a large amount of marine

charge is paid from port funds. The solvency of these funds has been attended to; partial relief from EXPENDI-
TURE. past deficits has been given where necessary, and the obligation to keep the expenditure of the funds within their income, by improving the latter, or reducing the former, has been asserted,—with due consideration, however, for such special causes of embarrassment as the ravages of the cyclones in Calcutta, and the consequent heavy expenditure for repairs or replacement of vessels, and for renewal of moorings.

CHAPTER III.

EXPENSES OF SPECIAL DEPARTMENTS.

EXPENDI-
TURE.

Special Departments will be considered in the following order :—

- 1.—Education.
- 2.—Post Office.
- 3.—Electric Telegraph.
- 4.—Medical, Political, and Miscellaneous.
- 5.—Public Works.

EDUCATION, SCIENCE, AND ART.—Educational establishments and expenditure may be noticed under the following heads :—

- 1.—Direction and inspection.
- 2.—Colleges.
- 3.—Schools and Vernacular Education.
- 4.—Grants-in-aid.

Direction and
inspection.

At the commencement of the period under review, two provinces, *viz.*, Oude and British Burmah, were without a Director of public instruction. The appointment of this official to the former province in 1864 gave a great stimulus to education, and the permanent continuance of the experimental appointment of a Director in British Burmah awaits a report of the results which have attended it in the past two years. The appointment, further, of Inspector has been created in Oude, and the strength

of Inspectors has been increased generally in all other parts of British India. In Bengal the increase has been given specially for the supervision of vernacular schools and the improvement of vernacular education. An increase of deputy or sub-Inspectors for grants-in-aid and other inferior schools has also been provided.

EXPENDITURE.

Within the past five years colleges have been established in the Punjab and Oude, and one has been added in the Madras Presidency. That in Oude is a memorial of Lord Canning, founded by the talookdars or landed aristocracy of the province, with help from the State under the grant-in-aid rules. In the older provinces of Bengal and in the Madras and Bombay Presidencies, the staff of professors has been strengthened to meet the requirements of the University course and the need for law lectureships, and by the improvement of the pay of professors the class has been more freely recruited from the Universities in England. The increase has been largest in the lower provinces of Bengal, where the higher education is in great development, and in consequence the fees in the Bengal colleges have been raised.

Increase of Colleges and of Professors.

Among schools, those of the first grade are the collegiate and zillah schools in the Bengal Presidency, the provincial and zillah schools in the Madras Presidency, the high schools and superior Anglo-vernacular schools in the Bombay Presidency, and normal schools in the three Presidencies. These have been increased in number everywhere, but principally in Oude, the North-Western Provinces,

Increase in the number of schools and of Teachers.

**EXPENDI-
TURE.**

and the Punjab; and the strength of teachers per school has grown with the increase of pupils. The increase of Government schools will not check the growth of aided schools, for it has been determined to apply the principle of the grant-in-aid rules to all Government schools, whether zillah, middle grade, or lower grade, by dividing these kinds of schools into classes according to the curriculum, limiting the Government contribution for each class of school, and requiring sufficient schooling fees and other local income to defray the rest of the expenditure which must bear an adequate proportion to the gross cost of the school.

**Grants-in-aid and
Scholarships.**

The principal increase of expenditure for education is in the amounts allowed as grants-in-aid and for scholarships. Owing to the rapid and large increase of grants-in-aid in Bengal, it was found expedient to remind the local Government that as the assignment on this head cannot be expanded indefinitely, a re-adjustment of educational charges paid wholly from the general revenues may in time be necessary. The number of scholarships has been increased in some provinces with the advance of the higher education, and in other provinces to stimulate the growth of the lower and middle class schools.

Assignments to be allotted on the principle of a grant-in-aid have been sanctioned for the promotion of native female education among the higher classes.

Medical Colleges.

The Medical Colleges in the three Presidency Towns have in a greater or less degree augmented

the charge for establishments by increase of staff or of establishments, or of stipends or scholarships, or of the scale or rate of expenditure for hospital diets and clothing. The expenditure for the last two items is partially set off by an increase of the charge to paying-patients in hospitals.

The head Science and Art includes the trigonometrical and topographical surveys of the Bengal Presidency, the geological survey of India, and museums at the Presidency Towns. The trigonometrical and topographical surveys and the agency for the professional part of the revenue surveys in the Bengal Presidency have been reorganised. The Surveyor General has been allowed an additional or second Deputy. The office establishments and the drawing and lithographic establishments under the Surveyor General have also been revised and strengthened, so as to clear off the heavy arrears of map drawing, and the publication of maps. This last has been very much accelerated and cheapened by the introduction of the photo-zinco-graphic process, and the employment for it of a competent staff and establishment. The remaining increase of charge for establishments has been caused by extra parties for pendulum experiments, in conjunction with the astronomical and geodesical operations of the trigonometrical survey, and for the topographical survey of Guzerat.

The geological survey has been strengthened in its museum and by the addition of a mining Geologist. The Calcutta museum has been recon-

EXPENDI-
TURE.

Survey establish-
ments.

EXPENDITURE.

stituted under a trust as a Government establishment. The grants for schools of industrial Art have also been increased, but sparingly, so as not to weaken the pressure which is put on these institutions to raise as much income as may be possible for their own support.

Postal Department.

POST OFFICE.—The increases of establishment and of other charges in this department may be noticed under the heads of—

- 1.—Supervision.
- 2.—Postal Delivery Establishments.
- 3.—Line Establishments and communications by sea.

Appointment of a Chief Inspecting Post-Master.

A Post Master General has been allowed during many years past for each Presidency and Lieutenant Governorship. At the beginning of the period under review there was a chief inspecting Post Master for Scinde and another for British Burmah; the status of these officers has been materially improved since; a similar officer has been allowed recently for the Central Provinces; the class of inspecting Post Masters in Bengal has been improved, the staff of these officials in the three Presidencies has been strengthened, and a class of sub-Inspectors has been created for visiting the minor post offices.

Compiler's salary and establishment.

The method of accounting for all the postage collected by a Post Master on bearing letters, &c., has been reformed. In effecting this reform it has been necessary to strengthen the establishment

of the Compiler of Accounts and increase his salary; the expense is more than covered by the increased receipts of postage on bearing letters.

EXPENDITURE.

The office establishments of the Director General and the several Post Masters General have been revised, and the Director General has been allowed a Deputy to aid him in inspections and for preparing a quarterly edition of a Postal Guide, similar to the British Postal Guide, and for other special work of a like nature.

Establishments of Director General and Post-Master General.

Under the head of postal delivery there has been a large increase of post offices. At the end of 1863-64 their number was 961 : it is now 2,284. There has also been a general revision of post offices; first in British Burmah; then in Assam, where the post offices were taken over from the civil officers and placed under Post Masters directly subordinate to an improved inspecting agency; and lastly throughout the three Presidencies.

Increase in the number of Post Offices.

The office establishments of the Post Masters in the three Presidency towns have also been strengthened for the increased work and the requirements of the more frequent mail services with Europe and beyond sea; and in Bombay a considerable expense has been incurred for an establishment of sea-sorters on the Peninsular and Oriental Steam Navigation Company's vessels between Bombay and Suez. The expense, however, was partially set off from the first by the reduction of the several agents formerly employed by the London Post Office, and is more than covered by an incidental saving of the cost of extra mail

Increase to the offices of the Post-Masters in the three Presidency towns.

EXPENDITURE. trains on the Great Indian Peninsula railway for the mails from Europe.

District Post. The district post has been revised and extended in both delivery and line establishments in the Madras and Bombay Presidencies, in the Central Provinces, the North-Western Provinces, and Oude. In all, except the last named province of Oude, it has been placed under the management of the local Post Master General or Chief Inspector. In the Madras and Bombay Presidencies the whole expense is charged to the general revenues, but in the above-named provinces of the Bengal Presidency the expense is met from a local cess aided by a subsidy from the general revenues and the profits of the Government bullock train. These measures have much improved the delivery of letters, and especially of native letters.

Statistics of postal communication. The statistics of the extent of postal communication at the end of 1863-64 and at the present day are as follow :—

	End of 1863-64.	End of 1867-68.
By Rail	2,473	3,958
Mail Cart and horse dâk	5,156	5,140
Runners and boat lines	33,853	34,930
Sea	5,137	5,613
	<hr/>	<hr/>
	46,619	49,671
	<hr/>	<hr/>

Improvements of postal communication. The principal improvements may be thus summarised: by the extension of the railway, the means

of transmission of the ordinary and overland mails between Bombay and the Bengal Presidencies and between the Punjab and Kurrachee have been almost perfected, and the communication between Bombay and the Madras Presidencies, and on the principal lines between the several provinces of the Bengal Presidency, has been greatly improved. The mail cart or other lines which fill up the breaks in the railway communication between Presidencies and Provinces and with the Berars have been made efficient; the lines in outlying provinces or tracts, such as British Burmah, Assam, Oude, the eastern part of the Central Provinces, Kattyawar, and the communication by land between the Bombay Presidency and Scinde from Ahmedabad, have been revised; and in fact there has been a general revision of post lines, including the parts of the three Presidencies which are distant from lines of railway.

EXPENDI-
TURE.

These changes have been effected at an increased charge for establishments, which has been compensated by a saving of other expense in the case only of railways. Where this means of communication has been extended, an additional charge has been incurred for mail guards, accommodation for sorting or travelling post offices, and the hire of extra trains; but the expense has been compensated by the reduction of expensive mail cart establishments. This latter saving, however, has in effect been appropriated in substituting mail carts for runners in other places.

Increased
expenditure met
by savings.

EXPENDI-
TURE.
Indian Carrying
Company and
Government Bul-
lock Train
Agency.

In 1862 an Indian carrying company was established with the object of securing and improving traffic on roads connected with the lines of railway in India. To promote their views, the Government withdrew from its bullock train agency and entered into certain arrangements with the Indian carrying company. In 1867 the Company asked to be allowed to withdraw from the contract. This was agreed to, and the Government has re-established the bullock train agency. Not long previously, in 1865, it had been obliged to establish a similar Agency, including a passenger service and a military van dawkh from Lahore to Peshawur, and between Rawul Pindee, Kohat, and Jhelum on the Punjab frontier; and in the present year a parcel and passenger service has been established between Nagpore and Jubbulpore on the main line between Calcutta and Bombay. Bi-monthly cargo boats have also been provided for the traffic between Rangoon and Toungoo. The system being thus nearly completed in the Bengal Presidency, the Director General of the post office has been empowered to extend it into a general agency throughout India for booking goods to destination.

Contracts with
Peninsular and
Oriental Com-
pany for overland
mails.

Under the head of subsidies to steam companies may be noticed the renewal of contracts with the Peninsular and Oriental Company for the overland mails. In supersession of the mail services under the former contract, a weekly mail has been established between England and Bombay, at the cost of a largely increased subsidy to the Peninsular

SPECIAL DEPARTMENTS.

and Oriental Company for the entire service, and of the Indian Government's share of that payment. Part of the extra expense may be recovered from an increase of postage.

EXPENDITURE.

Some contracts with the British India steam navigation company having expired in 1867-68, they have been renewed at an additional charge for extra advantages.

Contracts with British India Steam Navigation Company.

ELECTRIC TELEGRAPH.—Establishments and expenditure under this head have been increased in both the Indian and the Persian telegraph departments, principally in the former.

Electric Telegraph.

The Indian telegraph department has been re-organized. The three Directorships in Bengal, Madras, and Bombay have been abolished by an increase of the number of superintendents of circles. Two Deputy Directors General and a special superintendent for works of construction have been added to the Director General's staff; and two gentlemen have been appointed for instructing Assistant superintendents of circles and others in the improved methods and the executive details of European telegraphy. The number of signallers has been increased by strengthening old offices and opening many new ones. New training schools have also been formed. The work of construction, reconstruction, and repairs has embraced an extensive re-insulation of lines, an increase of wires on the main lines which connect Bombay with Madras and with Kurrachee, the North-Western Provinces and Calcutta, the telegraphic connection of Hyderabad

Re-organization of the Indian telegraph department.

EXPENDI-
TURE.

with the eastern coast, the formation of some alternative lines, the renewal of telegraph lines in Assam, and the construction of various new lines between important stations.

Indo-European
Telegraph.

The expenses of the Indo-European telegraph form a new charge in the Indian accounts in the period under review. The staff of the telegraph in the Persian Gulf and Mekran line has been increased ; a second wire for the Persian telegraph has been added.

Miscellaneous
departments.

MEDICAL, POLITICAL, AND MISCELLANEOUS.—Under this general heading the remaining measures involving increases of establishments or of charges in the Civil Department may be gathered up, *viz* :—

1st.—Offices and establishments for the interior or branch circles of paper currency at Allahabad, Lahore, Nagpore, and Kurrahee, and for three interior circles in the Madras Presidency.

2nd.—A large increase of charitable dispensaries under rules which render obligatory local contributions towards the cost of the dispensaries. This principle was enforced for many years in Bengal ; it has been introduced in the past five years into the North-Western Provinces, the Punjab, Oudé, the Central Provinces, and British Burmah, and its fuller observance has been enjoined in the Madras and Bombay Presidencies.

3rd.—Sanitary measures, *viz.*—

EXPENDI-
TURE.

(a).—The appointment of a Sanitary Commissioner under each local Government and Administration, and of a Sanitary Commissioner under the Government of India, and the provision of office establishments for them.

(b).—The re-organization of establishments for vaccination under Superintendents General, or Superintendents of Vaccination throughout British India:—where practicable, the liability of municipalities to contribute to this expense in towns has been asserted.

(c).—Meteorological reporters for Bengal, North-Western Provinces, and the Punjab, and allowances and establishments for meteorological Observers in the three Presidencies.

(d).—Establishments for Lock Hospitals.

4th.—Political Department, *viz.*, the appointment of a Political Agent at Mandalay and of additional Assistants to the Resident in the Persian Gulf and to the Governor General's Agent in Central India, the revision of the civil administration of Kattyawar, and the re-construction of the Bundelcund Agency.

EXPENDI-
TURE.

5th.—The appointment of a Cotton Commissioner for promoting the cultivation and the improvement of cotton in the Central Provinces and the Berars.

6th.—The institution of agricultural exhibitions in Bengal, the North-Western Provinces, the Punjab, the Central Provinces, and Khandeish, the holding of an exhibition for cotton manufactures in Broach; and the establishment of a model farm in Khandeish.

Irrigation
department.

PUBLIC WORKS.—Under this head, the principal increases of establishment are on account of irrigation works, for the prosecution of which Executive Engineers and Assistant Engineers have been added to the establishments in the Madras and Bombay Presidencies, and in the older provinces of the Bengal Presidency, the strength of upper and lower subordinates being also increased in the North-Western Provinces and the Punjab. For the supervision of irrigation projects, and the better control of irrigation works, there have been allowed a Chief Engineer on the footing of an Under Secretary to the local Governments in Bombay and Bengal; a Superintending Engineer in the Central Provinces, and temporarily in British Burmah, and other special provision in Oude. In the North-Western Provinces and the Punjab new aid of this kind has not been given, because Irrigation Departments have existed there from before the period

under review ; but in both provinces those departments have been entirely remodelled, at a specially heavy expenditure in the North-Western Provinces, owing to the necessity for remodelling the Ganges Canal. In the Central Provinces the Godavery project has entailed a heavy charge for establishments.

EXPENDITURE.

The number of executive divisions generally in the several provinces of the Bengal Presidency has been further increased by the large expenditure for barracks, jails, and roads, the more vigorous prosecution of public works in Assam, and the heavy works of construction in progress in Calcutta. A like increase has occurred in the Madras Presidency, where the establishments have been re-organized, and in the Bombay Presidency, where the divisions have been re-distributed, and where a large expenditure for establishments at Bombay has been caused by the general re-construction of public buildings at the Presidency Town, and by the works of reclamation and harbour defence which are in progress.

General branch.

In furtherance of the scheme of trunk roads in Rajpootana and Central India, the establishments in the Rajpootana Circle and in Central India were gradually increased, till at length the two circles were recently re-organized under a Chief Engineer.

Trunk roads in Rajpootana and Central India.

Consequent, chiefly, on the new system of accounts, and, latterly, from the increased expenditure for irrigation, the office establishments of Executive Engineers have been revised in the three Pre-

Office establishments.

EXPENDI-
TURE.

sidencies, so as to provide a qualified accountant for each division, and generally with an increase of the strength of clerks. The office establishments of Chief Engineers and Superintending Engineers have also been strengthened, while the expense under these several heads has been partially set off by a reduction of the cost of the office establishments of Controllers of public works accounts. At the same time it has been found necessary to increase the staff of Controllers and Assistant Controllers of public works accounts, on account of the re-organization of the establishment in Central India, and the increase, and the special treatment henceforth, of the expenditure for irrigation works.

Railway
department.

The railway department consists of the Consulting and Deputy Consulting Engineers, through whom Government exercises the general control which it is required to maintain over railways, and of the Government Examiners of railway accounts. Owing mainly to the completion of the East Indian Railway to Delhi and the necessities of the through traffic, the controlling staff in Bengal and the North-Western Provinces has been consolidated under the Government of Bengal; that under the Government of the Punjab has been re-organized, consequent on the progress of railways in the province; the staff in the Bombay Presidency has been strengthened at various times on account of works of construction and re-construction; and a Consulting Engineer has been appointed for Oude. A staff of examiners of railway accounts, aided, where necessary, by Ac-

countants, has also been provided for the audit of the accounts of Railways in India, under the new system which will be noticed under the head of EXPENDITURE Accounts.

CHAPTER IV.

EXPENSES OF PUBLIC WORKS AND IMPROVEMENTS.

EXPENDI-
TURE.

The revisions of Public Works establishments have been mentioned in a former chapter, and the facts relating to Public Works expenditure will be noticed in a subsequent chapter. The present chapter will be confined to such other points of the administration of Public Works as affect the finances.

Large scheme
of Barracks.

The first point to be noticed is the determination of a large sum for the outlay on the accommodation for the European Army in India. This was done in 1865. The estimated cost of the scheme of the new military buildings is ten millions sterling. The work was considered so urgent that its cost could not be spread over a large number of years. The expenditure began in 1864, since when $4\frac{3}{4}$ millions have been spent, leaving $5\frac{1}{4}$ millions to be still expended.

Loans for
reproductive
works.

With regard to reproductive works (that is, works calculated to yield a directly remunerative return to the State), it was determined in 1866 that the funds for them, when not obtainable from the cash balances, might be provided by a loan. The works primarily held to belong to this category are those for irrigation in India generally, and those pertaining to what is known as the special fund at Bombay. The important principle of borrowing for these purposes has been carried into

effect. In the two past years £1,926,082 have been spent on the larger irrigation works, and the Bombay special fund works, while the amount borrowed for them has stood at £1,500,000.

The special fund in Bombay is designed to consist of the proceeds of sale of the land on the site of the old fort and esplanade; and of a portion of the land which may be reclaimed from the sea. Large sales were effected in 1864 and 1865, but since then the sales have ceased. The cost of providing Bombay with new civil buildings, and of the works of harbour defence and reclamation, were to be defrayed from this source. The income realized has in all been £715,000, while the expenditure up to April 1868, and the grant for 1868-69, have amounted to £2,196,000. In anticipation of the eventual recovery of the outlay from the sale proceeds of the land it has been decided to provide funds for these special works by means of loans. As above seen, the deficit, *i. e.*, difference between £715,000 and £2,196,000, has amounted to £1,481,000. To meet this, it has as yet been found necessary to borrow £600,000.

The formation of new districts, the extensive works in Calcutta and Allahabad, the improvement of the Kurrachee Harbour, and expenditure for Central and District Jails all over India, have raised the outlay for civil buildings somewhat above the amount in 1863-64. On the other hand, the expenditure on roads and communications has shown a tendency to decrease; in other words, we are not

<p style="text-align: center;">EXPENDI- TURE.</p> <hr style="width: 100%;"/>	<p>spending quite so much as we were on this very important branch. This falling off has been unavoidable by reason of the large allotments demanded for irrigation and specially for military works.</p>
<p>Net result.</p>	<p>The net result has been an augmentation in the total expenditure on Public Works from £5,378,523 to £6,894,660 within the period under review, being an increase of 28 per cent. In 1863-64 the above expenditure was at the rate of 10 per cent. on the total revenue of 45 millions. In 1867-68 the expenditure was at the rate of 13 per cent. on the total revenue of 48½ millions. The above totals are exclusive of guaranteed interest and other State payments for railways.</p>
<p>Railways.</p>	<p>The question whether the further extension of Railways in India could not be carried on without a State guarantee of interest on the paid up capital has been determined. In 1866 it was declared that experience showed the necessity of continuing the guarantee system. The question whether the rate of such interest can be reduced for new lines, and whether the State control over railway expenditure can be improved in efficiency, is now being considered.</p>
<p>Guaranteed interest.</p>	<p>The amount of gross guaranteed interest paid by Government has risen from £2,490,831 in 1863-64, to £3,865,000 in 1868, owing to the large increase of the Railway capital, which has been raised for works of construction, and which has risen from 55 millions in 1863-64 to 81 millions in 1868. But the net amount of guaranteed interest, (that is, after deducting net</p>

traffic receipts, or traffic receipts less working expenses,) is less than in that year, owing to the improved earnings of some of the Railway Companies. This net amount has fallen from £1,700,000 at the beginning of the period under review to £1,203,000 at the close. The gross traffic receipts have risen from £1,720,000 in 1863-64 to £4,875,112 in 1867-68. The current year, not yet concluded, will doubtless show a further increase. The fact, that the traffic receipts of Railways in India should be close upon five millions annually, affords striking proof of the progress of the country.

EXPENSE-
TURE.

It has been determined to construct a Railway from Lahore to Rawul Pindee by Government agency, from funds which may be raised by loan. This will be the first undertaking of the kind in India.

Railway from
Lahore to
Rawul Pindee.

Local funds arising partly from various cesses, partly from special taxation, have long existed in India. During the period under review, they have been brought under the same budget system which is prescribed for all other departments, whereby receipts and payments are annually brought under regular consideration. There has been a great expansion of the funds in the past four years, and the amount devoted for them to works and public improvement has risen from £2,049,303 in 1863-64 to £2,932,521 in 1868-69.

It has been deemed expedient to apply a check to the borrowing of money by municipalities on the credit of their revenues. It has been decided that the Government, on being satisfied

Municipal
Loans.

EXPENDI-
TURE.

of the merits of the case, will guarantee such loans as may be needed; or will advance the money, on interest, from its own cash balances, exacting proper security for repayment. In furtherance of this policy a loan of 52 lakhs, £520,000, to the municipality of Calcutta has been sanctioned for the water supply project.

CHAPTER V.

REDUCTIONS AND RETRENCHMENTS OF EXPENDITURE.

Details under this head would be too diffuse for this summary. It may be observed generally that a large expenditure has been saved or avoided by positive reductions of charge arising from diminution of pay or strength, by negating or modifying propositions for increases of salaries and establishments, and by requiring adequate contributions from local, municipal, or other special sources, for those kinds of expenditure which should not be borne entirely by the general revenues. The character of the reductions or retrenchments may be indicated by noticing such items as admit of generalisation.

EXPENDI-
TURE.

Under the head of Land Revenue, a considerable expense for officers and subordinate executive officers has been avoided by modifying proposals for increases of their salaries in the Non-Regulation Provinces, Bengal, and in the Revenue Department of the Bombay Presidency, and by disallowing the creation, or directing the reduction, of several appointments and of one revenue district. Increases of salary have also been refused in other instances. Large sums have been retrenched by modifying proposals for a revision of ministerial establishments, such as those of the Settlement and Revenue Departments in the Central

Savings in Land
Revenue expendi-
diture.

EXPENDI- TURE.	<p>Provinces, and the Revenue department in Oude and the Punjab; and lesser sums in the Bombay Presidency, and in Assam. Furthermore, tehsil or sub-collectorate treasuries at the head quarters of zillahs or districts have been abolished in the Central Provinces, Oude, the North-Western Provinces, and in several districts of the Bombay Presidency, and a similar reduction has been urged on the Government of the Punjab. Every such reduction causes a saving of charge for police guards and treasury establishments. The strength of peons or orderlies in the Revenue department, Bengal, in sub-collectorate establishments in the Central Provinces, and in establishments of districts and of sub-collectorates in the North-Western Provinces and the Bombay Presidency, has been reduced, together with other petty officials in the three last named divisions of territory. The reduction was made in fulfilment of a condition imposed by the Government of India before sanctioning an increase of other charges for revenue establishments.</p>
Excise.	<p>In the department of Abkaree or Excise, three Deputy Superintendents of Stamps and Excise in Oude, and about half a lakh, or £5,000, a year for sudder distillery establishments in Bengal, have been reduced; but the saving in Bengal has been absorbed in the cost of extending the system.</p>
Customs.	<p>Some establishments in the customs line in the North-Western Provinces were reduced in 1865, but the saving has been absorbed in the subsequent extensions of the line, which extensions cause</p>

additions to the revenue. The appointment of a Collector of Customs at Thayetmyo in Burmah has been abolished, an increase of salary for the Collector of Customs, Madras, has been refused, a proposal for raising the salary of the corresponding official at Kurrachee has been modified, and an application for the formation of a pension fund for the Customs department, North-Western Provinces, has been negatived.

In the Opium department a very large saving was effected by reducing by eight annas a seer of 2lbs the price paid to the cultivator for crude opium, and by abolishing some sub-divisions in the Benares agency. The salaries of the Opium Agents have also been reduced.

The expediency of abolishing the Madras Mint has been under consideration, and the measure may be carried out in a short time.

In Administration and Public Departments the salaries and the number of the members of the Revenue Board, Bengal, have been reduced, and an Assistant Accountant General, Bombay, has been abolished, and applications for the appointment of a Medical Inspector of Emigrants, Bombay, and an Under Secretary to the Chief Commissioner, British Burmah, have been rejected. An increase of salary has been denied to the Medical Inspector of Emigrants, Bengal.

Under Law and Justice the number of subordinate courts has been reduced by the substitution of itinerating Small Cause Courts, and,

EXPENDI-
TURE.

further, some Small Cause Courts in Bengal have been abolished by doubling up their jurisdiction and in other ways. An increase of salary to the Judge of Small Causes at Nagpore has been refused. A scheme for the revision of judicial establishments in the Bombay Presidency has been considerably modified as to officers, and other portions have been referred back to the Local Government for reconsideration of the strength of ministerial establishments, and of the unusually high pay proposed for a numerous class of bailiffs, &c. A similar scheme of revision of ministerial establishments in the civil courts in the Madras Presidency has also on similar grounds been remanded to the Local Government for reconsideration.

Registration of
assurances.

On the formation of a department for the registration of assurances in the Madras and Bombay Presidencies, the North-Western Provinces, Punjab, and the Central Provinces, considerable reductions, generally, were made in the scale of charge which had been submitted to the Government of India, and the expenditure for this department is kept within its receipts.

Jails.

In the jails the strength of fixed and contingent guards has been revised and in general reduced, the measure being assisted by the substitution of convict for paid warders to a limited extent, yet with a considerable saving. Reductions of this kind are still being carried out gradually by the Local Governments, whose attention has been drawn to the heavy expense of guarding jails. The cost of general

revisions of jail establishments in the Bombay Presidency and in British Burmah has also been reduced considerably below that which was originally proposed.

The police in Bengal, the North-Western Provinces, and the Bombay Presidency, and the mounted police in the Central Provinces, have been reduced in strength. In Bengal the high pay which had been allowed for certain grades of the police has been cut down at a considerable saving of expense, and a proposition for a costly scheme of police schools has been negatived. In the North-Western Provinces the reduction in strength led to a considerable saving in cost. In the Bombay Presidency there has been much of similar saving; but on the other hand it has been absorbed in raising the pay of the police. A large portion of the gross increase of pay which the Local Government recommended for constables has, however, been disallowed. In the Madras Presidency the total police charge having been reduced by a considerable retrenchment to 39lakhs (£390,000) a year, applications for large sums in excess of this limit have been repeatedly negatived. The Government of the Punjab and the Administration of Oude have also been required to meet fresh Police charges from the limit which was prescribed for their expenditure in 1863-64. A Deputy Inspector General of Police has been abolished in Oude. Applications for an additional district superintendent in the North-Western Provinces and for additional assistant district superintendents

EXPENDI-
TURE.

in the Central Provinces, have been rejected. By the abolition of the Police Superannuation Fund a further large saving will be effected, without interfering with the real security of the Police Officer's pension.

Education,
Science and Art.

The expenditure under "Education, Science, and Art" is progressive; nevertheless some retrenchments have been made. Propositions for increased charges for zillah and tehseel schools in the North-Western Provinces, and for tehseel schools in the Punjab, have been cut down by considerable annual sums; applications for larger pay than the general rate for head masters of schools which merely train up to the standard of the university entrance examinations have been negatived, and an expenditure for vernacular schools in Bengal which, if extended, on the present scale, over the Lower Provinces, would exceed 20 lakhs, £200,000 a year, has been checked at its present limit of one and a half lakh till the Bengal Government shall have provided adequate local income for extending the system with partial help from the State. Repeated applications from the Bombay Government for a contribution from the general revenues of an amount equal to any annual assignment for educational buildings from the local educational cess have been negatived, as being at variance with the grant-in-aid rules, and because a concession would commit the Government to an outlay of about 9 lakhs (£90,000) a year, for this one item, in the Bengal Presidency alone.

In the Civil Medical Department, representations from some Local Governments that medical officers in civil stations should generally receive the consolidated pay prescribed for those in medical charge of regiments were disallowed: several of the minor stations have been transferred from covenanted to uncovenanted medical officers, or have been amalgamated with the circles pertaining to regimental medical officers at the same stations; an increase of strength in the medical staff at Madras, and of allowance for a medical officer at Bombay, has been avoided by redistribution of duties; a recommendation for raising the pay of Sub-Assistant Surgeons in Bengal was negatived, and schemes proposed by the Local Governments for promoting vaccination in the Punjab and the Madras Presidency were modified at a considerable saving of expense in the aggregate.

In the Marine branch, the dockyard at Rangoon Marine. and the Irrawaddy flotilla have been sold, and the steam flotilla in Bengal which was employed for conveying malt liquor up-country and bringing down opium has been put out of commission, but a great part of this latter saving will be absorbed by payments for railway transit of the malt liquor and opium. In Bombay one sea-going transport and a vessel for harbour service have been reduced. The salary of the Master Attendant and Post Master, Kurrachee, has been reduced.

Besides these reductions and retrenchments of civil expenditure, the general revenues have been relieved by transfer of charge to the local funds, or

EXPENDI-
TURE.

Medical Service.

Transfer of
charges to Local
Funds, &c.

EXPENDI-
TURE.

by obtaining an equivalent for it from local sources of income, as in the following instances :

LAND REVENUE.—By way of compensation for the additional charge incidental to liberal increases of the pay of ministerial establishments of the Revenue Courts in Bengal, the North-Western Provinces, Oude, and the Central Provinces, and of sub-collectorate establishments in the three last named provinces, the surplus of the funds for serving processes in those divisions of territory has been credited to the general revenue. The pay of officers absent in Europe from the administrations of the Berars and Mysore, formerly treated in England as a part of the Home expenditure, is now recovered from those territories. The cost of the contour survey in Rohilcund has been charged to the local fund of the Terai Pergunnahs.

FORESTS.—The expense of planting and preserving roadside trees has been charged on Local Funds.

LAW AND JUSTICE.—The surplus of the funds for serving processes of the civil courts in the North-Western Provinces has been appropriated, and that in the Bombay Presidency is to be appropriated, to the general revenues in consideration of the liberal increase of pay of ministerial establishments in the judicial department. It has been ruled that when convict labor is lent to municipalities, its cost shall be recovered from them.

POLICE.—A considerable part of the charge for the police of the three Presidency towns and a portion of that for the Calcutta suburban police has been transferred to municipalities.

EDUCATION, SCIENCE, AND ART.—In Bengal, the scale of fees in colleges has been raised on account of the increasing charges for those institutions. In the Bengal Presidency beyond the Lower Provinces; and in the Bombay Presidency, one-half of the cost of normal schools, the whole of the stipends of students who are being trained there for schools chargeable to the educational cess, and the cost of all tehslee schools in excess of one per tehslee, are recovered from the cess. It has also been directed that the amount of State expenditure for Female Schools must be regulated by the amount of popular contribution. Additional charge for the schools of Industrial Art in Calcutta and Madras has been refused, in order that it might be defrayed from local income.

MEDICAL SERVICES.—The popular contributions towards the expenditure for Dispensaries have been mentioned in a previous chapter.

MARINE.—Light dues have been levied to cover the cost of Light House establishments in British Burmah.

POLITICAL AGENCIES AND FOREIGN SERVICES.—The native chiefs in Kattyawar have been required to contribute towards the cost of native troops that have been substituted for a local force which the chiefs were liable to maintain at an annual charge of one lakh or £10,000. Another half lakh a year having been sanctioned for the improvement of the civil administration of Kattyawar, it was directed that, as far as possible, it should be made

62 REDUCTIONS & RETRENCHMENTS OF EXPENDITURE.

EXPENDI-
TURE.

good from the institution fees in the local civil courts.

MISCELLANEOUS.—Proposals to charge to the general revenues large increases of expenditure for the district dâk, North-Western Provinces, which cannot be met from its current income, have been negatived on the ground that they should be met from the balance at credit of the district dâk fund.

Public works
expenditure in
the civil depart-
ment.

Latterly, there has been a tendency to a considerable increase, in the civil estimates and accounts, of charges for public works which, practically, are an addition to the public works allotment. To check this, and enforce the payment from that allotment of charges for buildings which come within the category of public works, large sums have been disallowed from educational and other estimates.

Reductions of
Army expenses.

The reductions of Military Establishments have been noticed in a former chapter.

PART II.
MEASURES RELATING TO REVENUE AND
RESOURCES.

In this part will be considered : Ordinary heads RESOURCES.
of Revenue, *viz.*, Land, Excise, Opium, Salt, Cus- Subjects treated
toms, Stamps, Post Office ; Special Taxation, *viz.*, of in Part II.
Income Tax, License Tax ; Local Taxation ; and
Loans.

It will be seen that in every head and category
some important improvement has been introduced.

CHAPTER VI.

ORDINARY HEADS OF REVENUE.

LAND REVENUE.—A revision of the former re- Settlements of
gular settlements of land revenue has proceeded Land Revenue.
in the Madras and Bombay Presidencies, and in
all parts of the Bengal Presidency where the settle-
ments were open to revision, such as the North-
Western Provinces and the Punjab. A regular
settlement has been made for the first time
throughout Oude and the Central Provinces. A
similar settlement is being made in Assam and
British Burmah. In the Madras Presidency the
usual improvement of the land revenue from such
revision has been enhanced by the bringing under

RESOURCES. assessment much land that had unnecessarily escaped taxation, and in both Madras and Bombay Presidencies there has been further fiscal benefit from increase of cultivation consequent on a general rise in prices. In Oude the revision of settlements will add £340,000 a year to the revenue; in the Central Provinces an increase in the revenue of about twelve per cent. has been obtained, so far as the settlement has as yet progressed; in the Punjab and North-Western Provinces similar advantages will be obtained; in British Burmah the principal and immediate benefit aimed at is the foundation of a system which will be fiscally productive in after years. The extension of the permanent settlement to the North-Western Provinces, in other words, the limitation of the Government demand for the land tax in perpetuity in those provinces, has been carefully considered; and it has been decided that an estate, whether receiving canal water or not, shall be admitted to a permanent settlement only if at least 80 per cent. of its culturable area is under cultivation, and if there be no clear and definite foundation for the hope of an increase of its assets by 20 per cent. within twenty years.

Proceeds of sale
of waste lands.

Before the period under review it had been ordered that the proceeds of sale of waste lands should be employed in extinguishing debt by the purchase and cancellation of Government securities. In 1865, however, it was ordered that the Government securities purchased with the proceeds of the sales since 17th October 1861 should be retained under

the custody of the Local Governments concerned, RESOURCES. and that the interest thereon should be credited to Land Revenue. The entire sum thus invested, according to the latest account, amounts to £ 275,753.

ABKAREE, OR EXCISE ON DRUGS AND SPIRITS.—Formerly this revenue was farmed to contractors, whose interest it became to stimulate drunkenness, inasmuch as the price which they paid for the farm was virtually adjusted, on conjecture, to the probable past consumption, and any increase upon that consumption augmented their profit. Thus, although the system had been fiscally productive, yet in general estimation it had a tendency to encourage drunkenness. It has now been superseded by the sudder or central distillery system, or that of taxing every gallon of the actual consumption at the place of manufacture of the spirits. Thereby the tax operates directly as a check upon undue consumption, like all excise in other countries. This improved system was introduced into the North-Western Provinces, and into a part of Bengal, before the period under review. During that period it has been introduced throughout the Central Provinces, Oude, and the Punjab, and into parts of the Bombay Presidency. At the outset its introduction entailed a loss of revenue, which was readily borne in regard to the avoidance of the moral objections to which the old practice had been obnoxious. But it will be seen further on that the revenue has since fully recovered itself, being half a million greater in the current year than in 1863-64.

RESOURCES.

Sale of opium.

OPIMUM.—In the early part of the period under review it was customary to bring forward at the Government sales of opium all the produce, in each season, of the Behar and Benares opium agencies. The effect in two prolific seasons in 1863 and 1864 was a glut in the market which depreciated the price of Malwa as well as of Bengal opium, and endangered the duty of Rs. 600 a chest on Malwa opium. In reference to this and other similar considerations, and in order to keep the prices of Bengal opium steady, to check the tendency to speculate, and to make the fiscal out-turn more certain in amount, it has been resolved to sell a fixed number of chests annually, at present determined at 48,000 chests in Bengal; to give ample notice of any change of the quantity to be annually brought forward, and to create a reserve stock from which to make up any deficiency in the fixed quantity in a bad season. This reserve, fixed for the present at 10,000 chests, has not yet been formed; when it shall have been obtained, then violent fluctuations in the price of opium will be prevented.

The low prices during the above-mentioned glut in the opium market led the opium merchants at Indore to petition for a reduction of the duty on Malwa opium; but the causes which had brought about the depression of the opium trade having been removed in two following years no reduction has been found necessary.

Net revenue.

It has recently been decided to take credit for only a certain sum of opium revenue annually,

proposed at $6\frac{1}{2}$ millions net, after deducting expenditure; any sum in excess of this to be held in the general reserve of the Treasury. By these means the element of uncertainty in respect to opium will be removed from the Indian Budget, as the $6\frac{1}{2}$ millions will, at all events, be rendered comparatively certain.

SALT.—The duty on salt in the Bombay Presidency was raised from Re. 1-4 to Re. 1-8 a maund of 82 lbs. in January 1865 to equalise it with the duty in the Madras Presidency. More recently an increase in the charges of manufacture of salt in the latter Presidency having reduced the rate of profit or duty, out of the maximum selling price, below Re. 1-8 a maund, the maximum was enhanced by legislation to the extent requisite for securing that rate of duty. An Act has also been passed enabling the Government of Madras to substitute the excise system, wherever expedient, for the present system of manufacture by individuals who are permitted to sell only to the Government.

In British Burmah the excise duty on salt has been raised from $2\frac{1}{2}$ annas to 3 annas a maund. In the Central Provinces, the extension of the Customs Line, round their west and southern frontier to a point in the eastern districts, has brought the territory south of Nagpore under the special duty that is levied on Bombay and Madras salts which enter those provinces. Measures have also been adopted for levying this duty on railway-borne

RESOURCES.

Salt duty in
Bombay and
Madras.Salt duty in
British Burmah.

RESOURCES. Bombay salt without hindrance to the general traffic of the railway.

Salt duties in Bengal and Northern and Central India.

More recently it has been held that the duties throughout the Bengal Presidency are too high, and that some attempt should be made to bring the duties in different parts of India to something nearer equality, and a scheme for a revision of the salt duties, whereby effectual relief will be afforded to the population of Bengal and of Northern and Central India, has been submitted to the Secretary of State for India.

Duty on stamps used in judicial proceedings.

STAMPS.—These duties are of two classes; Schedule A, or Stamps on papers used in transactions generally, commercial or other; Schedule B, or stamps used in judicial proceedings. The rates of these duties continued unaltered until 1867-68, when the duties in Schedule B of the Stamp Act, or those relating to judicial proceedings, were revised with a considerable augmentation on the whole. The measure has added greatly to the revenue, but there is fear lest it should operate injuriously by unduly checking litigation. This has led to a further revision with a view to mitigation which is still in progress; and the opportunity is being taken to revise the Schedule A, or commercial stamps, in order to bring the principle of these duties into nearer accordance with that which prevails in England.

Stamp revenue.

The administration of the Stamp revenue of a whole Presidency or Province by a special Superintendent was in force in some parts of British India before the period under review. The measure has

been sanctioned during that period in the Bombay RESOURCES.
 Presidency and in the Central Provinces. In the
 Punjab the working of the Stamp Act has been
 investigated by an officer who was specially deputed
 for the enquiry; and in a Bill which is now before
 the Legislative Council means are being provided
 for a more efficient working of the Act and a
 stricter enforcement of its provisions. Various
 minor improvements affecting the "bi-color" and
 "adhesive" Stamps have been devised for the
 prevention of fraud or mistake in this branch of
 the revenue.

CUSTOMS.—In the beginning of 1864 the general Import duties
and revision of
Customs Tariff.
 rate of import duties was reduced from 10 per cent.
 to $7\frac{1}{2}$ per cent. In 1867-68 the Customs tariff was
 revised both as to duties and valuations. For the
 former a new classification was adopted. Instead
 of enumerating certain articles which shall be free,
 and leaving every other article subject to duty, the
 opposite plan was adopted, on the report of a com-
 mittee, of enumerating the articles which are to pay
 Customs duties, every article not enumerated being
 free, as in the English tariff. On the same occasion
 numerous articles which yielded a small revenue
 were declared free. Among imports upwards of
 40 articles were removed from the column of
 charge, leaving only 97 articles, further reduced
 to 65 classes of articles, upon which duty is levi-
 able. Among exports, duties were abolished on
 88 articles, retaining only 5 classes of articles
 on the dutiable export list. As a compensation for

RESOURCES. this sacrifice of revenue, and in consideration of the greatly increased exports of grain, and of the rise in its price since the last augmentation of duty from $\frac{1}{2}$ anna to 2 annas per maund (of 82lbs), the duty was further raised to 3 annas a maund without any injurious effect on the trade. On the other hand, the export duty on saltpetre, which had been raised to Rs. 2 a maund in 1860-61, was reduced, in the first instance, to one rupee a maund, and then to 3 per cent. *ad-valorem*, and was afterwards repealed. Timber and wood have also been exempted from export duty.

With regard to tariff valuations, it had been found necessary, in 1863-64, to revise the fixed tariff values for one class of imported cotton goods, which constituted five-eighths of the total imports of such goods, and which, at those fixed tariff values, paid considerably less duty than the remaining three-eighths, which paid duty *ad-valorem*. The tariff valuation was accordingly assimilated in 1863-64 with the high market value of the day, after allowing for a probable fall. In 1867-68 this tariff valuation of cotton goods was greatly reduced, and the tariff valuations of all other dutiable articles were revised at the same time.

The ports of Native States on the coasts of the Madras and Bombay Presidencies have been placed on the footing of British Indian ports, in respect of imports from and exports to them at ports in British India.

POST OFFICE.—The postal rate on letters in India has not been altered. That on letters to and from Europe has been increased by three pence per half ounce on account of the revision of the contract with the Peninsular and Oriental Company, and the attendant additional payment for a weekly mail service. Consolidated rates of postage, securing the transit of a letter over the entire route to its destination, have been arranged with France, Belgium, and Italy, also with the United States, for correspondence by the line of packets recently established between San Francisco, Yokohama, and Hong-Kong. A similar arrangement has been concluded with the Government of the Straits Settlement since its transfer to the control of the Colonial department of the British Government.

RESOURCES.
Postage on
Europe letters.

The half anna as Indian postage corresponds in principle, if not in exact amount, with the penny in English postage. The weight $\frac{1}{2}$ tola (or $\frac{3}{8}$ oz. troy) allowed to be carried for this sum is supposed to be too small, and, among other inconveniences, to induce the Natives to use unduly thin paper. It is proposed to raise this amount to a full tola; the fiscal loss will not be great, and the change is justified by the growing increase of the postal revenue.

Official correspondence is now charged with postage, which is credited to the Post Office revenue on the same footing as the postage paid by the public.

Postage on official correspondence.

CHAPTER VII.

SPECIAL TAXATION.

RESOURCES.

License and Certificate Taxes.

The Income Tax, which had been imposed for five years from 31st July 1860, at a gross rate of 4 per cent., but had been reduced to 3 per cent. in 1863-64, was allowed to expire on 31st July 1865, and with it ceased a net revenue of one million sterling. Two years later, or in 1867-68, the Government was compelled, by the growth of expenditure, to impose a rough Income Tax, in the form of a License Tax, for an estimated yield of half a million sterling of net revenue, but which produced £700,000. In 1868-69, this tax was modified into a Certificate Tax, which, it is estimated, will, from its lighter incidence, yield less, or half a million sterling. Under the Certificate Tax the mean incidence, instead of being 2 per cent. as under the License Tax, is not much more than $1\frac{1}{2}$ per cent., nor does it reach yearly incomes below Rs. 500, while the License Tax embraced incomes of Rs. 200 a year. The last named change in the incidence of the tax caused no less than 450,000 tax-payers of the poorer classes to be exempted out of a total of 600,000 tax-payers.

Pandhari Tax in the Central Provinces.

The Pandhari Tax, an old impost in Nagpore territory, while under Mahratta rule, has been made general in the Central Provinces. The tax

embraces incomes and classes which are not RESOURCES. reached by the License or Certificate Tax, and it is recovered from those who pay the latter; one-half of its proceeds has been made over to the local funds of those provinces.

Among special taxes which, not for the first time, Succession duty and tobacco tax. were urged on the attention of Government in 1867-68, were a succession duty, and a tax on the cultivation of tobacco. These had been considered on previous occasions, and the grounds on which they were recommended having been carefully reviewed, the Government of India and the Secretary of State for India agreed that the levy of either of them as an imperial tax was not expedient.

CHAPTER VIII.

LOCAL FUNDS AND LOCAL TAXATION.

RESOURCES. Under this head the main items are the cesses fixed at a small percentage upon land revenue for roads and education, and in the North-West Provinces for police. These have been increased or introduced in the revised Settlements in the Central Provinces, the North-Western Provinces, and Oude, and are being levied as new cesses in the Bombay Presidency. Corresponding cesses have been created in British Burmah for education and police. The Government of Bengal has been informed that a similar cess for education and roads ought to be raised in the Lower Provinces in order to place them on an equality in this respect with other parts of British India. In the beginning of the period under review, tolls on bridges-of-boats and on imperial roads were made over to Local Governments. In the Madras Presidency voluntary cesses for education, which partake of the character of municipal taxes, are being raised under a permissive Act of the local legislature.

One per cent.
Income tax
fund.

When Mr. Wilson introduced the income tax, one-fourth of its proceeds was allotted for expenditure on public works in the Presidency or Province in which it might be raised. The entire sum so appropriable, under this arrangement, amounted to £1,600,000 for the five years that the tax was in

operation. Of this sum one and a quarter million was made over to the Local Governments and Administrations before the period under review, and the remainder has been paid during that period. RESOURCES.

The convict labor fund has for years added largely to the local funds for public works in the Lower Provinces of Bengal. The introduction of intramural labor, during the period under review, into most of the jails in the Madras and Bombay Presidencies, has admitted of the formation of similar funds in those Presidencies, and the retention of the profits of jail manufactures on the footing of a local fund has been recognised as the rule in British India. Convict labor fund in Madras and Bombay.

The revenue, under Bombay Act VIII of 1865, from canal clearances in Sind, and that from fisheries in tanks, streams, and rivers, in the Madras and Bombay Presidencies, have been transferred to the local funds of those Presidencies. Transfer to local funds of revenue from canal clearances and fisheries.

Relief from charge of upwards of a quarter of a million sterling due to the State for certain past expenditure has also been afforded to the local port funds of Kurrachee and Calcutta. It was found necessary to make this concession in order that the necessary improvements in these ports might not be impeded by the existence of debts to Government which the local funds were really not able to discharge. These debts have been accordingly wiped out on the condition that a clear understanding in respect to the future finances of the ports shall be come to. Port funds.

CHAPTER IX.

LOANS.

RESOURCES. The public debt of India amounted to 88 millions sterling at the beginning of the period under review, and to 93 millions in the beginning of the present official year.

Loans in England and in India.

The ways and means of the several years have been supplemented by loans to the following extent during the period under review, *viz.* :—

In 1865-66, £8,54,100 (net), obtained in England by the sale of India 5 per cent. stock.

In 1866-67—

In England :

£

563,662 by sale of stock.

1,168,239 by issue of debentures and bonds:

1,000,000 borrowed on security of bonds,
of which sum £500,000 will be re-paid in 1868-69.

2,731,901

90,000 paid off.

2,641,901 net.

In India :

£600,000, borrowed on debentures.

In 1867-68—

RESOURCES.

In England :

£1,164,407 by sale of stock.

In India :

£1,479,800 borrowed on debentures.

It will be shown further on how these loans are compatible with a healthy state of the finances. Here it will suffice to notice the success of the Debenture Loans of 1866-67 and 1867-68. The Debentures for 60 lakhs in 1866-67 were made repayable in three unequal instalments, one, two, and three years after date. But the Secretary of State for India having urged the inexpediency of issuing Debentures repayable at such short dates, the subsequent Debentures of 1867-68 were made repayable in fifteen, ten, and five years after date. On both occasions the money was obtained at a little less than 5 per cent. per annum.

During 1867-68 and 1868-69 temporary accommodation loans aggregating £1,230,000 were obtained from the Bank of Bengal to assist the Government of India in advancing the moneys urgently required for the Expedition to Abyssinia. Of the above about half has been repaid and the remainder will shortly be adjusted.

PART III.
ADMINISTRATIVE MEASURES CON-
NECTED WITH FINANCE.

In this part will be considered: Currency includ-
ing Paper, Metallic, Mint; Banks, Money Order
Department, Savings' Banks, Treasuries, and Cash
Balances; Statistics; Furlough and Leave Rules;
systems of Account and constitution of the Finan-
cial department.

ADMINISTRATIVE
MEASURES.
Subjects treated
of in Part III.

CHAPTER X.

CURRENCY.

In the period under review the Currency Note
circulation has risen in all India from five millions to
ten and a half millions sterling, nearly one-half of the
increase being in the Bombay Circle. All the exist-
ing sub-circles of Paper Currency were established
within the same period; and under the orders of
the Secretary of State for India, the agency of
the Presidency Banks for promoting the circulation
of Currency Notes was discontinued in Bengal on
1st January 1866, and in Madras and Bombay
on 1st March 1867, an exchange department for
the retail work of cashing and issuing Notes being
established at the same time in the three Presidency
towns. By the discontinuance of the commission

Circulation of
Currency Notes;
sub-circles of
Paper Currency.

ADMINISTRATIVE
MEASURES.

of $\frac{3}{4}$ per cent. on the circulation, to the Presidency Banks, a large saving has been effected in the accounts of the Currency department.

Within the Currency department the convertibility of the Note has been absolutely maintained.

The Notes of sub-circles being cashed at the head office at the Presidency Town, the large accumulations of these cashed Notes are generally cancelled by a transfer of the equivalent in coin from the General Treasury to the head office, and from the sub-office of issue to the local treasury. In order that the currency reserve may be preserved intact from the financial exigencies of the Government, it has been ruled that a transfer of coin from the Currency department to the Government Treasury, though for an equivalent paid at another station to the Currency department, shall not be made without the order of the Head Commissioner.

The convertibility of the notes outside the Currency department has not been disregarded. They had always been receivable as legal tender at Government treasuries of the circle in satisfaction of Government demands. In the period under review, treasury officers have been further empowered to cash freely the notes of the circle in which these treasuries are situated, except when the demand upon them may be such as cannot be met without serious inconvenience. The notes of other currency circles have also been made cashable at all Government treasuries for the convenience of travellers.

Confidence in the notes has been further promoted by liberal rules, founded on those of the Bank of England, for the payment, under certain conditions, of the value of lost notes, and by the introduction of a new form of Note in which its value is expressed in the principal vernacular characters of the circle.

ADMINISTRATIVE MEASURES.

In February 1866 a mixed commission of Government officers, including members of the Executive Council of the Governor General, and experienced merchants and bankers, was appointed to report on the subject of the Government Paper Currency, and in connexion therewith on the subject of gold currency. Some of their recommendations were partly followed, partly anticipated, by one or other of the measures above described. Their further suggestions respecting the augmentation of the number of circles are under consideration, having been referred to the local Governments for opinion. A new suggestion of a local note for each zillah or district throughout India, is similarly under consideration.

Appointment of Commission to report on Currency.

The silver currency, which is legal tender, is dependent, as to the amount of annual coinage, on the imports of bullion, which vary with the state of the foreign trade. Of late the imports and the coinage have declined. The copper currency appears to be redundant, judging from the large accumulations of pice in the Government Treasuries, but the subject is receiving careful consideration. British currency has been introduced into Cooch

Import and coinage of silver; copper currency; British Currency into Cooch Behar and Bundelcund.

ADMINISTRATIVE MEASURES.

Behar, and is being gradually introduced into the States of Bundelcund, in supersession of the native coinage.

Gold Currency.

The expediency of a gold currency was considered in 1864, when, as an experimental measure, it was ordered that the sovereign might be received in Government treasuries at the value of Rs. 10, by a notification dated the 23rd November 1864. At first a certain quantity, amounting to about £100,000 of sovereigns, were received at the treasury; a portion of that amount was taken up by the public; and a portion was remitted back to England, that operation being found profitable in the existing state of the exchanges. After a time, however, the presentation of sovereigns at the treasury altogether ceased. And it became apparent that the rate of ten rupees was below the intrinsic and market value of the sovereign. In accordance with the recommendation of the Currency Commission above mentioned, it has been decided to offer ten rupees four annas for the sovereign, that rate being as near as possible in accord with the actual value of the coin and also with the standard fixed by the Act XVII of 1835 for the coinage of gold pieces in India which law is still in force.

At the same time it has been determined to resume the receiving of Indian gold pieces at the treasuries. This practice existed up to 1852 when it was suspended in reference to apprehension of excessive influx of gold from Australia. Mean-

while the coinage of these pieces at the Mint has gone on to a large extent under the provisions of the Act of 1835, the coins being still much in demand with the people. It has now been notified that they may be received at the treasuries under the terms of the Act.

ADMINISTRATIVE MEASURES.

CHAPTER XI.

BANKS AND TREASURIES.

ADMINISTRATIVE MEASURES.

Agreements with Presidency Banks.

BANKS.—The first topic under this head is the revision of the agreements with the Presidency Banks which manage the business of the General Treasury. As already observed, the agency for the circulation and encashment of Currency Notes has been withdrawn from them, and the management of the Public Debt on remunerative terms has been transferred to them. In addition, it has been arranged that on the transfer of the Government Treasury at a station in the interior to a branch Bank, the Bank shall be allowed the use of the Government balances, on the condition of its meeting all Government demands on the treasury. By an increase of the capital of the Banks the arrangement has been made mutually beneficial, for, while the Bank profits by the use without interest of the Government balances in interior treasuries which are managed by its branches, and of the balance in the General Treasury up to a certain maximum, the Government is able to obtain temporary accommodation from the Bank in times of pressure for which otherwise it must enter the market. Considerable help has been derived in this manner from the Bank of Bengal, from which special and temporary accommodation loans were taken up for the service of the Abyssinian Expedition to the sum of a million

and a quarter sterling; besides additional sums on more recent occasions for other services. Also large remittances between provinces have been effected on advantageous terms through the Bank's agency.

ADMINISTRATIVE MEASURES.

In Bombay, the old Bank of Bombay, after having increased its capital, was obliged to go into liquidation, losing nearly its entire capital, but discharging all liabilities. The causes of this misfortune are being investigated by a commission of inquiry which has special powers. A new Bank has been established in which the Government holds shares.

Liquidation of old Bank of Bombay and establishment of a new Bank.

MONEY ORDER SYSTEM.—The money order system, which had been established experimentally in the Lower Provinces of Bengal in 1862, was extended throughout India in 1866. The maximum limit of a money order was raised from Rs. 100, £10, to Rs. 150, £15, in 1867, and permission to money order offices to draw upon each other, without distinction of presidencies, was accorded in 1868. The transactions of the department already have an aggregate amount of nearly one million sterling per annum. The improvement of the agency is under consideration, together with other points relating to the extension and consolidation of the system throughout India.

Extension of Money Order system.

SAVINGS BANKS.—The Government Savings Banks in the three Presidency towns have made satisfactory progress; but with a view to a much larger extension of the system in the interior of the three Presidencies, the local Governments

Progress of Government Savings Banks.

ADMINISTRATIVE MEASURES. and Administrations have been consulted on the best means of forming and popularising District Savings Banks in the interior of the country throughout India as branches of the Central Savings Bank.

Periodical inspection of Treasury Accounts. **TREASURIES.**—The cash balances in treasuries have always been properly verified; but before the period under review, the state of the books and accounts and the procedure in the account department of treasuries were not scrutinised. They are now periodically inspected in every Presidency and Province by the Accountant General or Deputy Accountant General.

Transfer of cash balances to branch Banks of the several Presidencies. The business, and the use of the cash balances, of the treasuries noted on the margin have been made over in the past five years to branches of the Banks of the respective Presidencies which are connected with Government.

Dacca.	Agra.	Umritsur.
Patna.	Cawnpore.	
Rajshahye (Rampore Beaulcab).	Lucknow.	Rangoon.
Mozufferpore (Tirhoot).	Nagpore.	Akyab.
	Jubbulpore.	Moulmein.
Mirzapore.		Bangalore.
Benares.	Delhi.	Ootacamund.
Allahabad.	Lahore.	Hyderabad.

Reduction in cash balances in India and in England. **CASH BALANCES.**—At the beginning of the present official year the cash balances in British India and in the Home Treasury had been reduced below the amount at the close of 1863-64 by a little more than two millions sterling, of which one million and a half out of a cash balance of four and a half millions was reduced in the Home Treasury. The reduction in British India has fallen upon the General Treasuries and the Mints at the three Presidency Towns. The revised agreement with the

Bank of Bengal has prevented any serious inconvenience from the large reduction of the cash balances in the General Treasuries, while the balances in the mofussil treasuries have been maintained at the usual amounts. These latter cash balances contain, *1stly*, the reserve, about four millions sterling, for supplementing the deficits in the three months from 31st July to 31st October, in which the receipts of the treasuries fall short of their payments; *2ndly*, the further reserve for unforeseen emergencies. The experience of the past two years has shown, however, that for this second purpose of the reserve the mofussil cash balances are in a great measure ineffective, their existence to an amount exceeding four or five millions not having prevented the advance of nearly a million sterling at Bombay by the Bank of Bengal for the service of the Abyssinian Expedition in 1867-68. It has been determined to strengthen the General Treasury balance at Calcutta by reducing the mofussil balances as far as possible, the facilities for remittance which are afforded by the Railway, the paper currency, and the numerous branches of the Presidency Banks, making Calcutta the proper centre for the greater part of the reserve of cash balance which is maintained for unforeseen emergencies.

The advances above mentioned for the Abyssinian Expedition began in the second half of 1867-68, and the charges so advanced, repayable by the British Government, have amounted to upwards

ADMINISTRATIVE MEASURES.

Advances of the Abyssinian Expedition.

ADMINISTRATIVE MEASURES.

of six millions sterling. As these heavy payments are being reimbursed gradually to the Indian Treasuries, the consequent strain upon the Indian cash balances has been considerable, and in the autumn of the current year, they fell very low, though not lower than in 1866. It is estimated that by the end of the year, six millions sterling will have been repaid by the British Government.

Payments of Prize money.

During the period under review, Prize money to the amount of one and a half million sterling has been disbursed from the Home and Indian Treasuries.

The aggregate of the cash balances in India at the close of each official year of the period under review may be stated as below :—

	Including Berars and the Eastern Settlements up to 1865-66.	Excluding Berars and the Eastern Settlements.
	£	£
1863-64	12,632,012	12,182,181
1864-65	12,638,897	12,205,835
1865-66	13,771,625	13,177,280
1866-67 ... ..	...	11,057,054
1867-68 ... ..	...	12,179,233
1868-69 (Revised Budget Estimate) ... ..	...	12,091,233

CHAPTER XII.

STATISTICS.

A scheme of financial statistics, and of other statistics relating to trade and navigation, was devised before the period under review, but in the uncertainty respecting the changes in classification of receipt and charge incidental to the revision of the account system by the English Commissioners for inquiry into the system of Indian accounts, the arrangements for the publication of the statistics were not matured till the year 1866-67. A volume of financial statistics is in the press, which records the financial progress of British India from 1792-93 in the following detail:—

ADMINISTRATIVE MEASURES.
Publication of financial statistics.

- 1st.—In totals for India and for each presidency and province, and for each principal head of revenue, from 1792-93.
- 2nd.—In totals for India and for each Presidency, of principal divisions of charge, from 1851-52.
- 3rd.—In detail of principal divisions, and of major and minor heads in each division, for British India and for each presidency and province, from 1861-62.
- 4th.—Miscellaneous statistics illustrating the greater or less progress of each

ADMINISTRATIVE MEASURES.

Statistics of trade and navigation.

principal head of revenue, of public works and military charges, debt, cash balances, currency, &c.

With regard to trade and navigation, the statistics published in India were confined to one presidency or province; the totals for British India of the trade with each country and in each article, and of the carrying trade, were not given. These are now published in the form of monthly returns, which give the figures for the month and the progressive totals for the expired months of the year. A volume also is in the press, which records the statistics of commercial progress of British India, *1stly*, in totals for each presidency and province, and for India, from 1834-35; *2ndly*, in detail of the more important principal articles and countries for each presidency and province from 1852-53; and *3rdly*, in complete detail of articles and countries for 1866-67.

The separate annual record of the trade and navigation of each presidency and province which is published by the local Governments, has been assimilated in principle with that for the United Kingdom, which is published by the Board of Trade in London. The volume will give in one view for several years the total trade of each presidency and of its chief port respectively, and also a separate view of the trade of the several subordinate ports.

CHAPTER XIII.

FURLOUGH AND LEAVE RULES.

The rules for leave of absence or furlough have been revised for every branch of the service, civil, military, medical, and ecclesiastical, covenanted and uncovenanted. Those relating to the uncovenanted service are awaiting the approval of the Secretary of State for India; the others are in operation. They constitute, on the whole, one of the largest boons ever conceded to the Indian services.

ADMINISTRATIVE MEASURES.

Revision of furlough and leave rules for all branches of the service.

The principal feature of the revision is the grant to the covenanted civil, military, medical, and ecclesiastical services of the same absentee pay in England as in India, with retention of office on the same conditions as during absence in India. As this will reduce the number of vacancies from forfeiture of appointments and increase the number of acting officers, the deputation allowances of these latter have been improved, but with such re-adjustments of the allowances of absentees as, on the whole, will probably not involve additional expense to the State, while the measure will, on the whole, add to the popularity of Indian service. For the uncovenanted service it has been proposed to attach different conditions to absence within and beyond India, but to allow Europeans and Natives alike the option of either scale of advantages.

CHAPTER XIV.

SYSTEM OF ACCOUNTS AND CONSTITUTION OF THE FINANCIAL DEPARTMENT.

ADMINISTRATIVE MEASURES.
Change in system of accounts.

The defects of the Indian system of accounts had long been known, but they remained uncorrected from lack of an authoritative exposition of the defects and their remedies by competent critics not wedded to any Indian system. This want was supplied by an enquiry into the Indian system by two officers of the English Treasury and War Office, Messrs. Foster and Whiffen. In dealing with the Public Works accounts they were associated in a commission with officers of the Public Works Department, and in the Military and Civil departments they conferred with the proper officers of account. In accordance with their recommendations, the system of account in all departments has been changed, so as to adapt it, in respect of promptitude, clearness, and accuracy, to the requirements of the systematic and methodical administration of finance which was established by Mr. Wilson.

Under the old system, the record of revenue and charge in the annual books of account differed widely from the actual income, and from the actual expenditure out of the ways and means of the year:—

1st.—The revenue received in a year was credited as a receipt not necessarily of

that year, but of any previous or future year to which the corresponding revenue demand might have appertained; and similarly the payments in a year were treated not necessarily as that year's expenditure, but as a charge of any past or future year to which the corresponding demand against Government appertained.

ADMINISTRATIVE MEASURES.

2nd.—The cost of stores was not charged necessarily in the year of purchase against the ways and means of that year, but was debited to a store account, and in lieu thereof the very different amount of value of stores expended in a year was charged against the year's income.

In consequence of this wide discrepancy between the record of revenue and charge respectively in the regular books of account and the actual receipts and payments of the year, these latter were detailed in a separate record of receipts and disbursements as the revenue and finance accounts prescribed by Parliament. But though they approximated to the real transactions of the year, they were defective in several respects from not being made up from balanced books of account. By separating stores from the cash accounts, and revenue accounts of demand and collections from the ordinary treasury accounts, by treating the receipts and payments

ADMINISTRATIVE MEASURES.

of a year as the revenue and charge of that year, and by disencumbering the general books of account of minute statistical detail which had overlaid them and had interfered with their speedy compilation, the English Commissioners of Account removed the defects above mentioned, brought the record of revenue and charge in the regular books of account into accord with the actual receipts and payments of the year, substituted monthly accounts of audited receipts and charges for an annual account which contained partly unaudited charges, and ensured the completion of the revenue and finance accounts earlier than under the old system. These improvements were effected in 1864-65 and 1865-66 in the Revenue and Finance accounts.

Another defect under the old system was the disjointed character of the civil, military, and public works accounts, which interfered with the central control over military and public works charges and civil finance. The military accounts of the three presidencies were incorporated in the civil books of the three separate Governments of India, Madras, and Bombay, and the public works accounts of the several Governments and Administrations were incorporated in the civil books of the respective presidencies and provinces. Neither civil receipts and charges, nor military and public works charges, were ever brought together in Indian books into a combined account for India. Under the new system this has been remedied.

The military and public works accounts have been separated from the local civil. Instead of closing into the local civil books as heretofore, they close into imperial books of military and public works accounts which are maintained under the Military and Public Works Departments of the Government of India, whose special control over the expenditure in those departments is thereby strengthened. And, finally, imperial books, embracing the civil, military, and public works transactions for India, have been established under the Comptroller General of Accounts, into which the several Civil Provincial Accounts, and the Imperial Military and Public Works Accounts, are closed, *i. e.*, in which the results of the civil receipts and charges of each presidency and province, and the consolidated imperial accounts of military and public works receipts and charges, are incorporated from month to month and for the year.

ADMINISTRATIVE MEASURES.

Separation of Military and Public Works accounts from Civil.

By this concentration of the accounts of presidencies and provinces in the books of the Comptroller General of Accounts, the "unadjusted amount between presidency and presidency" in the financial accounts has been largely reduced. This term means the net difference between the credits afforded by each presidency or province for the debits made or to be made against it by all other provinces.

An expedient for holding in suspense payments which ought to be brought against the income of the year is the head of advances recoverable. Over these advances the Accountant General or his

ADMINISTRATIVE MEASURES.

Deputy is required to exercise a personal and vigilant supervision, and annually they are reviewed with the object of keeping down the amount under this head, and of seeing that no charges are retained under it which should have been charged against the income of the year.

Interchange of half-yearly account current with India Office.

Under the old system there was a want of correspondence between the accounts in India and the Home accounts. Items were debited in India to account current with London, but the mode of their disposal in England was not known. This has been remedied by the interchange with the India Office of a revised form of half-yearly account current, in the subsidiary vouchers of which requisite details of adjustments are given.

Abolition of pre-audit.

Formerly the salary bills of all officers and the pay bills of establishments, even at remote stations in the interior, were audited *before* payment. This system known as "pre-audit" caused some inconvenience and delay; and in some cases it threw forward the charges for one month into the following month. The new system of accounts did away with pre-audit, by throwing responsibility on heads of departments and others for the correct preparation of bills, and by empowering Treasury Officers to pay bills according to the sanctioned scale, with which they are kept fully acquainted by the local Accountants General. All these disbursements are subsequently subjected to the regular audit, and are passed according thereto. In the three Presidency towns, however, pre-audit is main-

tained, but with an improved procedure whereby the audit and payment are simultaneous.

ADMINISTRATIVE MEASURES.

Measures have also been adopted for strengthening the control of principal departments over their own financial affairs. Thus, in the Revenue or *quasi* Revenue Departments, and in the Public Works and Railway Departments, the following arrangements have been carried out:—

Improved control in the various departments.

1st.—In the Lower Provinces of Bengal, the same control over the revenue accounts as is exercised in other parts of India by the principal revenue authority has been transferred from the Accountant General, Bengal, to the Board of Revenue.

2nd.—In the Post Office Department, a check has been established in the Office of the Compiler of postal accounts, under the Director General of the Post Office, over the collection of postage on letters and parcels sent bearing, by comparing the collections of each Post Office with the value of the bearing covers which may have been sent to it for collection.

3rd.—In the Electric telegraph department a similar check was established over the receipts for messages; but more recently the payment of messages by telegraph stamps has been adopted, and, when this shall be made compulsory,

the special check above-mentioned will cease. The expenditure of the department is also examined and accounted for more systematically and efficiently than before by a Compiler of Telegraph Accounts.

4th.—In the Marine Department the accounts of the Bengal Marine and of those of the Government of India were scattered among three or four departments. They have been concentrated during the past five years in the Office of the Accountant General, Bengal, with a considerable gain in efficiency.

5th.—Provision has been made for the independent verification of the bullion balance and stock in the mints, for the audit of the accounts of the Currency department, the integrity of the Currency note registers, the careful entry therein of all cancellations of Notes, and the actual cancellation of the Notes jointly by the Account and Currency departments.

6th.—A system of Forest accounts has been established which relieves the Forest officers of compiled accounts, and ensures a uniform classification of the expenditure and its departmental scrutiny before it is finally passed by the Accountant General.

7th.—In the Public Works Department all expenditure chargeable to the public works allotment which is incurred by civil officers has been brought under the audit of that department, and to prevent civil officers from overstepping budget limits in anticipation of audit, it has been arranged that funds for their expenditure must be obtained from the Public Works Department.

ADMINISTRATIVE MEASURES.

8th.—In the railways in India, the final account for the declaration of half-yearly profits used to be made in England, though the means for an efficient Government audit exist only in India. The provision in the Railway Contracts that the gross earnings should be paid into the Government treasury specified in the contract was also more or less disregarded, and working expenses were often disbursed from funds advanced on capital account. All this has been remedied. As the first fruits of the reform, a sum of £937,000 which had been retained in private Banks in the Bombay Presidency by a railway Board, in disregard of its contract, was paid into the Government treasury. Annual budget estimates of the capital and revenue expenditure of Railways in India

are now submitted, and funds are advanced upon monthly estimates which are checked by Consulting Engineers. Then there is a prompt and searching audit of the receipts and expenditure on both capital and revenue accounts by Government auditors ; and on their audit the half-yearly profits are declared in this country. A liberal concession has at the same time been given to the railway companies in the form of interest upon their revenue balances in the Indian treasuries, whereby the Government virtually makes good to the Companies some part of the gain by exchange which it derives from the receipt of their earnings into its treasury at 1s. 10d. per Rupee.

9th.—The receipt and expenditure of local funds have been brought under better control. Annual budget estimates of these are now submitted to the Local Governments, and the results are reviewed by the Government of India.

Minor improvements.

Among minor measures which have had a beneficial effect in simplifying accounts or improving the check over them may be mentioned—

1st.—The conversion of the sicca loan into a new four per cent. loan, the consolidation of some of the old loans, and

the conversion of Government Securities into a Book Debt at the option of the holders. ADMINISTRATIVE MEASURES.

2nd.—The removal from the deposit registers of the revenue, judicial, and military departments, by a credit to revenue, of all unclaimed deposits more than three years old, or (in the High Court) more than ten years old.

3rd.—The removal of old balances from the books of the Comptroller General of Accounts after a careful investigation of their origin and actual state.

4th.—The substitution of English for Vernacular, to a great extent, in the treasury accounts as distinguished from the revenue accounts of Collectorates.

5th.—The commutation of small political pensions in Oude and the Central Provinces, besides the commutations of other small pensions under ordinary rules.

Among changes which will affect the comparison of the financial accounts of past and future years may be mentioned— Changes affecting comparison of accounts.

1st.—The change in the official year of account, which ends now on 31st March, instead of as formerly, on 30th April. This alteration was made mainly with a view to the earlier transmission of the annual accounts and estimates to

ADMINISTRATIVE MEASURES.

England for submission to Parliament, and it was effected by confining the transactions of 1866-67 to the eleven months ended 31st March 1867.

2nd.—The transfer of the Straits Settlements, and of the receipts and charges of the Settlement, to the control of the Colonial Department of the British Government from 1st April 1867.

3rd.—The separation from the same date of the revenues, charges, accounts, and cash balances of the Berars (Nizam's dominion) from those of British India.

4th.—The transfer to Government of the assets and liabilities of the Military Funds of the three Presidencies and the Bengal Military Orphan Society and the Bengal Medical Retiring Fund. Thereby large payments of interest to these Funds have ceased, and in lieu thereof the actual receipts and charges of the Funds are incorporated in the revenue and finance accounts.

Payment of surplus of Berar revenue to the Nizam.

By a treaty which was concluded with His Highness the Nizam in December 1860, the Government of India was absolved from any obligation to render accounts to His Highness for the receipts and charges of the Berars, while still remaining bound to make over any surplus. It was ordered in 1866-67 that the accounts of the territories should be kept separate. In 1867 a sum of 5 lakhs was

made over to the Nizam in part payment of the surplus; in 1868 it was ascertained that up to 31st March 1867 a surplus of about 25 lakhs or £250,000 had accrued and been credited to the general revenues in the years from 1861-62. Of this sum, the balance of about 20 lakhs (£200,000) remaining unpaid in 1867-68 was refunded from the general revenues in the present year, *viz.*, 10 lakhs by a payment to His Highness, and the remaining 10 lakhs by payment to the Berars.

ADMINISTRATIVE MEASURES.

Furthermore, to keep the Resident at Hyderabad fully informed of every detail affecting the expenditure chargeable on the Berar revenue, the audit of the accounts of the Hyderabad Contingent, previously conducted in Calcutta, was transferred to the Military Secretary of the Resident and the Deputy Accountant General of the Berars, the Military, Public Works, and Civil charges being concentrated in the books of the latter officer.

Audit of accounts of Hyderabad Contingent.

A change affecting the view of the annual financial position of British India remains to be mentioned. In 1855 the Government of that day determined to show the financial results of each year's transactions, first, by exhibiting the surplus, exclusive of Public Works charges extraordinary, and then by exhibiting the surplus or deficit after debiting those charges. Under that plan, however, all outlay for new works of whatever kind was shown as extraordinary charge, although additions and improvements to existing buildings and the construction of new buildings must be fairly regarded

Loan for reproductive irrigation works.

ADMINISTRATIVE MEASURES.

as a permanent current expenditure of the Government. On this ground Mr. Wilson did away with the distinction between ordinary and extraordinary expenditure on Public Works, and charged the whole of it against income. But subsequently the outlay on irrigation and other works greatly expanded. It was accordingly proposed to the Secretary of State that the funds for all reproductive works and for certain special works should be raised by loan. The Secretary of State has agreed to the principle of borrowing for new reproductive irrigation works when they cannot be provided from the income of the year, and to the exhibition of the charge for such new works as Public Works extraordinary charges; but no other class of Public Works expenditure except that for new works constructed from special funds, like those in Bombay, is to be regarded as extraordinary.

Supersession of office of Civil Paymaster by that of Deputy Accountant General.

Consequent on the new system of account and audit which was introduced in the civil department on the recommendation of Messrs. Foster and Whiffen, the office of Civil Paymaster, as one separate from that of the Accountant General, became unnecessary; but from want of a Deputy the latter functionary had been precluded from inspecting the treasuries under his control. A Deputy Accountant General was accordingly allowed in every Presidency and Province where there had been a Civil Paymaster, and an Accountant General was provided for British Burmah. The change has worked beneficially both in the internal arrangements of

the Accountant General's office and in the inspection of treasuries which has been mentioned in a former paragraph. The offices of Civil Account also are inspected by an Inspector, who is attached to the Department of the Comptroller General of Accounts.

ADMINISTRATIVE MEASURES.

In 1862-63, the staff of the Civil Account Department was re-organized as a separate department of the service in India. It was thrown open to all eligible candidates, who were to enter in the lowest grade, and who might rise according to their service and qualifications to the highest grade. In the first grade, the salary was fixed at Rs. 1,500 rising to Rs. 2,000 per mensem; in the second, at Rs. 1,000 rising to Rs. 1,500; in the third, at Rs. 800 rising to Rs. 1,000; in the fourth, at Rs. 600 rising to Rs. 800; in the fifth, at Rs. 400 rising to Rs. 600 a month; the maximum being attained in five years in the 1st class, in seven years in the 2nd class, and in four years in the other three classes. In addition Mr. Laing provided a class of probationers. This organization has not been altered, beyond permitting the extinction of the class of probationers; for, with the salaries above-mentioned, and with the care which is being exercised in the nominations to the department, there will be no difficulty in maintaining on its strength a body of educated gentlemen, especially trained and qualified for the duties of the department.

Recruiting for higher grade of the Account Department.

This chapter may be concluded by mention of the special office for the settlement of the accounts of

Settlement of the accounts of the Abyssinian Expedition.

ADMINISTRA-
TIVE MEA-
SURES.

Mr. Turner ar-
rived in 1867-68.

the expedition to Abyssinia. This office was organized early in 1868. It has been in full work under a gentleman specially deputed from England, since the return of the forces to Bombay in July of this year. By December upwards of five millions of expenditure on the expedition were classified, adjusted, and passed.

PART IV.
**GENERAL REVIEW OF INCOME AND
EXPENDITURE.**

CHAPTER XV.

ITEMS OF INCOME.

In the following notice of the items of **Income and Expenditure**, the figures for the Berars and the Straits Settlements, which occur in the accounts for 1863-64, but not in those for 1868-69, will be thrown out. The sums to be stated for 1863-64 will not correspond therefore with the totals given in the revenue and finance accounts for that year.

INCOME
AND EXPEN-
DITURE.

The items to be reviewed will be taken in the order of the Budget headings.

The **LAND REVENUE** in 1863-64 amounted to £19,940,000, in 1868-69 it amounts to £20,424,000, showing an increase of nearly half a million.

Land Revenue.

TRIBUTES AND CONTRIBUTIONS FROM NATIVE STATES have fallen off by £29,000. This decrease is nominal, it arising from the capitalisation of Maharajah Holkar's tri-

Tributes and
contributions.

1863-64 ... £ 715,990
1868-69 ... £ 687,000

**INCOME
AND EXPEN-
DITURE.**

bute, and from fluctuations in the collections which one year are in greater arrear than in another year.

The FOREST REVENUE has risen from £303,000 in 1863-64 to £399,000 in 1868-69.

Forest Revenue.	*1863-64...	£ 1,890,291	ABKAREE or EXCISE on drugs and spirits shows an increase of £ 400,000.
Excise Duty.	1868-69...	£ 2,291,400	

Assessed taxes. ASSESSED TAXES are one-half of the amount in 1863-64, owing to the repeal of the Income Tax, and the levy, after an interval, of a lighter and less searching Certificate Tax.

Customs Revenue. The CUSTOMS REVENUE stood at £2,384,000 in 1863-64; it stands at £2,692,000 in 1868-69, showing an increase of £300,000 notwithstanding a general reduction of import duties, and the special relief given in respect to some articles.

Salt Revenue and Stamps Duty.		1863-64.	1868-69.	The SALT REVENUE has im- proved by nearly one million sterling, and STAMPS by two-thirds of a million.
		£	£	
	Salt ...	5,032,535 ...	5,927,900	
	Stamps	1,693,916 ...	2,377,800	
		<u>6,726,451</u>	<u>8,305,700</u>	

Opium Revenue. The OPIUM REVENUE has risen from 6½ millions gross in 1863-64 to 8½ millions in 1868-69, *i. e.*, by two millions sterling; or from a net revenue of 4½ millions in 1863-64 to 7 millions in 1868-69, being an increase of 2½ millions sterling.

Mint receipts. The MINT RECEIPTS were £370,000 in 1863-64, but in 1868-69 they are only £221,000, owing to diminished imports of treasure and a plethora of copper coin.

Post Office Revenue. The POST OFFICE REVENUE has risen from £460,000 in 1863-64 to £636,000 in 1868-69; a part of this

increase arises from the credit of service postage to the postal revenue under Act XIV of 1866; but still there is a portion due from real increase of private correspondence.

INCOME
AND EXPEN-
DITURE.

The increase of TELEGRAPH receipts from £92,000 in 1863-64 to £252,000 in 1868-69 is due chiefly to the inclusion of the receipts of the Indo-European Telegraph in the accounts, since 1863-64.

Telegraph
receipts.

The receipts under LAW AND JUSTICE have risen from £442,000 in 1863-64 to £1,032,000 in 1868-69, and under POLICE from £165,000 to £274,000. Of these increases, a portion consisting of the surplus of *tulubana* (summonses) funds, is casual: the remaining increases are for the most part nominal, being set off by nearly corresponding amounts of Judicial and new Police charge.

Receipts under
Law and Justice
and Police.

In 1863-64 the receipts under MARINE (£302,663) were increased by the sale of vessels and stores in Calcutta and Bombay: in 1868-69 they amount to £292,000.

Marine receipt
in 1863-64.

The receipts under EDUCATION were £47,000, they are now £75,000, these largely arise from increase of schooling fees.

Receipts under
Education.

The INTEREST RECEIPTS amounted in 1863-64 to £72,000, but by the increase of the Government's shares in the Presidency Banks, and of the investments of the Currency reserve, they have risen to £226,000.

Interest Receipts.

The CIVIL MISCELLANEOUS RECEIPTS have risen (nominally for the most part) by £200,000, and PUBLIC WORKS by £40,000; MILITARY RECEIPTS are less by £56,000.

Civil
Miscellaneous.

INCOME
AND EXPEN-
DITURE.

Total revenue.

The TOTAL REVENUE in 1863-64 was £44 millions, in 1868-69 it is $49\frac{1}{3}$ millions, showing an increase of 5 millions sterling.

Thus there has been an increase on the whole and also on every larger heading, the exceptions to the general increase being only on the lesser headings.

CHAPTER XVI.

ITEMS OF EXPENDITURE.

In this review also the order of the Budget headings will be followed. INCOME AND EXPENDITURE.

The INTEREST ON FUNDED AND UNFUNDED DEBT Interest on funded and unfunded debt.
1863-64 ... £2,691,084 now slightly exceeds the charge
1868-69 ... £2,783,200 in 1863-64, owing to the prosecution latterly of irrigation and special fund public works by means of loans.

The INTEREST ON SERVICE FUNDS amounted in Interest on Service Funds.
1863-64 to £399,797; in 1868-69 it is £553,740. The increase is owing to the progressive increase of the capital of the several Funds from accumulated subscriptions.

ALLOWANCES, REFUNDS, AND DRAWBACKS show Allowances, Refunds, and Drawbacks.
the fluctuations to be expected in this essentially casual charge. The amount in 1868-69 is £87,000 less than that in 1863-64.

Under LAND REVENUE the expenditure was Land Revenue expenditure.
£1,770,000 in 1863-64; it is now £2,043,000; the increase has arisen from improved salaries of officers in the Non-Regulation Provinces, and of subordinate Judges and Executive officers in the three

INCOME AND EXPEN- DITURE.	Presidencies,—increased pay of ministerial establishment, an increased strength of officers in the civil administration, and an increase of charge for settlements.
Forest expenditure.	The charge for FORESTS was £141,479 in 1863-64, it is now double, or £285,600. The increase is partly set off by improved revenue, but it is chiefly owing to the growing necessity for a strict conservancy of the forests in India.
Charges for Ab- karee or Excise.	The charges for ABKAREE (EXCISE ON DRUGS AND SPIRITS), <i>viz.</i> , £220,638 in 1863-64, and £263,150 in the current year, have slightly risen from the improved system of sudder distilleries, while the portion of the increase which is affected by the cost price of opium, is set off by the recovery thereof in the gross proceeds of sale of Abkaree opium.
Assessed Taxes.	The cost of collecting ASSESSED TAXES has necessarily declined from £44,932 in 1863-64 to £21,000 in 1868-69.
Customs charges.	The charge for CUSTOMS has risen from £161,000 in 1863-64 to £186,000 in 1868-69, owing to increases of pay of sea-custom, preventive and wharf officers, and petty officials, and to increases of establishment.
Expenditure under Salt.	The expenditure under SALT has risen from £314,000 to £385,000 owing to large extensions of customs and preventive lines, and an improvement of pay of establishments.
Opium charges.	OPIUM charges have fallen from £2,300,000 in 1863-64 to £1,770,000 in 1868-69, from a reduction

of price to the cultivator, a decrease of production, and a reduction of establishment.

INCOME
AND EXPEN-
DITURE.

The expenditure for STAMPS has been stationary, notwithstanding an improvement of the revenue.

Stamps expen-
diture.

In the MINTS, the charges have decreased by reason of the diminished requirements of coinage, and the completion since 1863-64 of the Copper Mint, Calcutta, whereby charges for its construction have disappeared from the accounts of later years. A part of the decrease is also nominal, from the transfer to the Home accounts of the charge for Europe stores.

Mint charges.

1863-64 ... £162,182
1868-69 ... £106,530

In the POST OFFICE the charges have risen from £500,000 in 1863-64 to £588,000 in 1868-69, consequent on the increase of pay of all grades, and the improvement and extension of postal lines.

Post Office
charges.

The charges for the ELECTRIC TELEGRAPH were £322,000 in 1863-64,—they are now £465,500,—exclusive of the cost of Europe stores which, since 1865-66, has appeared in the Home accounts. Extensive constructions and renewals, increased establishments, improved pay, and charges of the Indo-European Telegraph, account for the increase.

Telegraph
charges.

The ALLOWANCES TO DISTRICT AND VILLAGE OFFICERS are affected by a revision of settlements; they amounted in 1863-64 to £401,000, and in 1868-69 to £397,000.

Allowances to
District and
village officers.

Under the head of ADMINISTRATION AND PUBLIC DEPARTMENTS the charge has risen from £1,018,000 in 1863-64 to £1,132,000 in 1868-69.

Charges for
administration
and Public
Departments.

- INCOME AND EXPENDITURE.**
Charges under Law and Justice.
- The increased expenditure for High Courts or Chief Courts, for improved salaries, jails, the settlement of Port Blair, and the Registration department, has raised the charges under LAW AND JUSTICE from £2,056,000 in 1863-64 to £2,691,000 in 1868-69. The entire expense for Registration, and part of the remaining increase, are set off, however, by improved receipts under Law and Justice, and there is a further compensation under Stamp revenue.
- Police charges.
- The gross charges for POLICE were £2,270,000 in 1863-64, they are now £2,470,000. A little more than one half of the increase is met by the improvement of Police receipts.
- Marine expenditure.
- The expenditure for MARINE, *viz.*, £563,000 in 1863-64, and £600,000 (exclusive of Europe stores,) in 1868-69 has been affected by the requirements of the river Indus, Assam, British Burmah, Port Blair, the Indo-European Telegraph, the maritime Police of the Red Sea and the Persian Gulf, and enlarged subsidies to Steam Companies for interportal communications in India and with the Persian Gulf. It is partly set off by increased recoveries from port funds and the British Government, &c., which are credited under receipts.
- Charges for Education, Science, and Art.
- The charge for EDUCATION, SCIENCE, AND ART, has increased from £435,000 in 1863-64 to £860,000 in 1868-69, chiefly from an enlarged outlay for Education, but in part also from an increase of expenditure for the trigonometrical and topographical surveys.

From an increase in the total number of the clergy, and of the proportion in the higher grades of Chaplains, the **ECCLESIASTICAL** charges have risen from £147,000 in 1863-64 to £163,000 in 1868-69.

INCOME
AND EXPEN-
DITURE.

Ecclesiastical
charges.

From a general increase of pay for all ranks in the covenanted, uncovenanted, and subordinate medical establishment,—also from an increase of dispensaries and of expenditure for vaccination,—the charge for **MEDICAL SERVICES**, which was £230,000 in 1863-64, now amounts to £637,000.

Expenditure for
medical services.

The expenditure for **STATIONERY AND PRINTING** amounted to £211,000 in 1863-64, inclusive of Europe stores; it now amounts to £229,000, exclusive of Europe stores, owing chiefly to the vast increase of work, and the greatly increased demands for publicity and general information,—for special information for heads of administration and departments,—and for departmental or professional instructions for the various officers and their establishments,—which are incidental to the more careful and exact administration that has been required of late years.

Expenditure for
stationery and
printing

The expenditure for **POLITICAL AGENCIES AND FOREIGN SERVICES** was set down at £217,000 in 1863-64. From causes mentioned in a former chapter it is now set down at £234,000.

Expenditure for
Political
Agencies, &c.

The charge for **ALLOWANCES AND ASSIGNMENTS UNDER TREATIES AND ENGAGEMENTS** was £1,880,000 in 1863-64; it is now £1,948,000.

Charge for
allowances and
assignments.

INCOME AND EXPENDITURE. The expenditure under the head of MISCELLANEOUS amounted to £378,000; this year it is £284,000.

Reduction of Miscellaneous expenditure.
Superannuation and Retired allowances.

That for SUPERANNUATION AND RETIRED ALLOWANCES was £552,000, it is now £639,000; but a great part of this increase arises from the transfer to Government of the liabilities of the Military Funds in the three Presidencies and of the Bengal Military Orphan Society, and the Bengal Medical Retiring Fund. This part of the increase is set off by items under receipts.

Increased expenditure for Army.

The expenditure in India, for the ARMY was £12,443,968 in 1863-64, inclusive of expenditure for Europe stores at less than the usual rate; it is now £12,905,000 exclusive of Europe stores. The causes of increase of charge have been mentioned in a former chapter. Notwithstanding the reductions effected in strength, the increases in pay, allowances and the like have prevented any reduction in charge.

Increase of Public Works charges.

The expenditure for PUBLIC WORKS amounted to £5,306,272 in 1863-64: it amounts to £6,894,660 in 1868-69. The increased outlay is mainly for barracks, fortifications, irrigation works, special fund works, and a proportionally increased charge for establishments.

If the charge be divided into two heads, Military and Civil, then the increase will be found to have occurred under the former category (Military), while under the latter (Civil) there has been actually a decrease in the ordinary works of material improvements, roads, public buildings and the like. These

conclusions will appear more clearly from the subjoined table :—

	1863-64.	1868-69.	<u>INCOME AND EXPEN- DITURE.</u>
	£	£	
Military	705,156	2,240,000	
Civil	2,472,816	2,396,526	
Irrigation Works	406,124	966,200	
Special Fund Works	380,000	470,000	
Establishment, Tools and Plant, State ex- penditure for Railways and guaranteed enterprise, and Loss by Exchange on Railway transactions	1,342,146	1,381,364	
	<u>5,306,272</u>	<u>7,454,090</u>	
<i>Deduct—</i>			
Amount retrenched from Public Works Es- timate, in the Financial Statement ... ..	.....	559,430	
	<u>5,306,272</u>	<u>6,894,660</u>	

The total expenditure in India amounted to £37,562,340 in 1863-64; now it amounts to £41,547,780, showing an increase of four millions sterling, against an increase of five millions under revenue.

The net expenditure in England, exclusive of stores, which at that time were charged in the Indian Accounts, amounted to £4,777,630 in 1863-64; it now amounts to £5,061,924, or (adding stores) to £6,392,400. A part of this increase is nominal, *viz.*, the expenditure for Malt Liquor, now paid for in England, but formerly disbursed in India as Military charge, and the expenditure for keeping up the Overland Transport Service, whereby the payments in India for the passage of officers and troops to and from England have for the most part ceased.

INCOME
AND EXPEN-
DITURE.

Diminution of
guaranteed
interest.

Guaranteed interest, less net traffic receipts of Railways, &c., amounted in 1863-64 to £1,669,000. In 1868-69 they amount to £1,203,000, showing a satisfactory diminution of charge, notwithstanding the constant expansion of our railway system. It might indeed at first be expected that the improved earnings of the two principal railways would be causing an even greater diminution of charge; but it must be borne in mind that there has been a large amount of additional capital which has been raised in the past two years under the guarantee.

The introduction of the regular budget system into the local funds department has been already mentioned. The result of the last budget under this head may be thus stated.

Year.	Income of the year.	Expenditure.
	£	£
1863-64	2,049,303	1,795,280
1868-69	3,932,590	3,092,695

The above statement is exclusive of the finance of the municipalities incorporated by special legislation such as those of the Presidency towns, of which the accounts are kept separately.

CHAPTER XVII.

AGGREGATE OF FINANCIAL RESULT.

In 1865-66 the sums which, according to the books of account, were owing by Government on the several public loans, were brought into accord with the smaller amount outstanding on the loan registers. This was done by writing off the excess in the accounts under debt, as a payment, and crediting an equal amount as revenue of the year. Thereby the income of 1865-66 was credited with a nominal receipt of £1,028,089 net, which unduly augmented the surplus of the year. Omitting this sum, the revenues and charges of India, in England and in India, exclusive of the Berars and the Eastern Settlements, have amounted to the following sums in the under-mentioned years, *viz.* :—

INCOME
AND EXPEN-
DITURE.

Revenues and
charges of India.

		1863-64.	1864-65.	1865-66.	1866-67 (eleven months).	1867-68.	1868-69. Revised Estimate.
		£	£	£	£	£	£
GROSS REVENUES	England ...	424,760	195,094	133,367	109,867	104,769	124,500
	India ...	43,993,785	44,979,670	46,285,454	41,255,742	48,434,360	49,351,050
	TOTAL ...	44,418,545	45,174,764	46,423,821	41,365,609	48,539,129	49,475,550
GROSS CHARGES.	England ...	5,202,390	4,997,495	5,110,552	6,814,469	6,957,046	6,516,900
	India ...	37,562,340	38,891,222	39,592,540	36,481,177	41,599,725	41,547,780
	Guaranteed Interest...	1,669,283	1,591,797	67,043	731,049	*1,204,963	1,202,900
	TOTAL ...	44,434,013	45,470,514	44,770,135	44,026,695	49,761,734	49,267,580
ULTIMATE RESULT ...	Surplus ...	...	...	1,644,686	...	...	297,970
	Deficit ...	15,468	295,750	...	2,681,088	1,222,605	...

* Regular Estimate.

INCOME
AND EXPEN-
DITURE.

Deficit in 1864-65
attributable to
casual charges.

The deficit in 1864-65 arose from exceptional circumstances. Thus the charge for guaranteed interest less net traffic receipts would have been considerably lessened, even to the extinction of the deficit, if one of the Railway Companies had not withheld payment of its traffic receipts into the Government Treasury. Casual non-recurring charges also fell against the income of 1864-65, and if these allowances be made the finances will be found to have been in a satisfactory state in that year.

Large surplus in
1865-66.

In 1865-66 the surplus of £1,614,686 was augmented unduly by the arrear payments of net traffic receipts of the Railway which had withheld its earnings in the previous year, and by large receipts from the sale of land in Bombay, but still there remained a surplus appertaining to the year after providing for all charges, inclusive of expenditure for Special Fund works, and for extraordinary Military works.

Large expendi-
ture in 1866-67
and 1867-68.

In 1866-67 and 1867-68 there was a large expenditure, *1st*, for the Special Fund works at Bombay, which, it is admitted, are properly chargeable against the receipts that may accrue hereafter from the sale of lands in Bombay, and are payable meanwhile from Loans or from the cash balance, not necessarily from current income; *2ndly*, for the extensive scheme of new Military works, the annual outlay for which exceeded the amount in previous years by half to four-fifths of a million sterling; *3rdly*, by casual and absolutely non-recurring charges for the con-

AGGREGATE OF FINANCIAL RESULT. 121

struction of the new India Office, and of the Indian Troop Transports for the overland service. Setting merely these three items against the deficits of 1866-67 and 1867-68, the results are as follow :—

INCOME
AND EXPEN-
DITURE.

	1866-67.	1867-68.
	£	£
Deficit	2,661,086	1,222,605
Special Fund works, less receipts	449,177	346,827
India Office and new Troop Transports	695,452	363,574
	1,144,629	710,401
Excess of expenditure for Military works extra-ordinary over corresponding charge in 1862-63 and 1863-64	577,028	883,755
	1,721,657	1,594,156

This leaves £940,000 of deficit in 1866-67 to be still accounted for. It arose from the increased expenditure for famine relief, and the diminished revenue on account of drought, and from the Government having, in the prosperous year 1865, and when the price of opium had fallen very low, found it necessary to limit the number of chests of opium to be sold in 1866.

That the deficit in 1866-67 was thus exceptional and 'casual' is apparent, further, from the improvement in 1867-68, notwithstanding the much larger expenditure in that year. More than one-half of

INCOME
AND EXPEN-
DITURE.

the deficit in 1867-68 consists of the expenditure for Special Fund works, and for the new Troop Transports for the overland service; and of the residue (less than half the deficit) a considerable portion is made up of expenditure for stores, &c. in the Bombay Dockyard and Arsenal, on account of the Abyssinian Expedition, which was unavoidably charged against the revenues of 1867-68, though it will be recovered hereafter from the British Government. Again about £110,000 of proceeds of one per cent. Income Tax, received in previous years, was allotted in 1867-68, in final settlement of the amount, and was charged against the income of that year. Making the requisite allowance for this, the bulk of the extraordinary expenditure of £1,283,755* in all, for new military works, was provided, with all other charges from the income of 1867-68.

* Or £883,755 in excess of the corresponding expenditure in 1863-64.

Surplus in
1868-69.

A like result, with even more satisfactory features, is presented in the revised estimate for 1868-69, which shows an income sufficient for the whole expenditure of the year, including £1,363,880 for extraordinary military works, and £1,270,000 for Special Fund and Irrigation works, which latter sum might have been legitimately provided for by a loan, had the income been insufficient. A considerable sum has indeed to be deducted from the gross income for the credits to revenue of certain old balances written off from under debt; but as these fall far short of the expenditure of £1,260,000

on Irrigation and Special Fund works, the conclusion holds good, to the effect that the income, besides covering all other charges, has sufficed in 1867-68 and 1868-69 to meet the whole expenditure of £1,360,000 in the current year, and the greater part of the expenditure of £1,280,000 in the past year, for extraordinary military works.

INCOME
AND EXPEN-
DITURE.

Summing up the results of the five years it appears that, exclusive of the Berars and Eastern Settlements, there were deficits as follow, viz. :—

				£
1864-65	...	...	...	295,750
1866-67	...	...	...	2,661,086
1867-68	...	...	...	1,222,605
				4,179,441

and that a surplus accrued, or is expected, as follows :—

				£
1865-66	...	...	...	1,644,686
1868-69	...	...	...	207,970
				1,852,656

leaving a net deficit on the five years of £2,326,785 after charging the whole expenditure for special fund works, and new irrigation works, against the income of the five years.

But since 1866-67 the propriety of providing for these two items by loans, or from the cash balances,

124 AGGREGATE OF FINANCIAL RESULT.

INCOME AND EXPEN- DITURE.	has been recognised, and for the three years	
		£
	* Special fund works ...	1,256,004
	New irrigation works ...	1,173,881
	TOTAL ...	<u>2,429,885</u>

from 1866-67 inclusive they have amounted to £2,429,885.* Setting this against the net

deficit, the receipts and charges are shown to have been in equilibrium. In reality, however, there was a considerable surplus, which has been applied in defraying heavy charges exceeding six millions sterling, of which, in strictness, not one-fifth was debitable to the income of the five years. Thus, the whole of an extraordinary and

† Construction of Indian troop transports ...		£
		1,088,852
Expenditure for the site, and the building of the new India offices during 1864-65 to 1868-69 ...		440,600
TOTAL ...		<u>1,529,452</u>

non-recurrent expenditure of one and a half million† sterling for the new Indian troop transports, and the new India office, has been paid from the income of the five

years. Again £4,667,028 have been provided from that income for the large scheme of military barracks which, it is estimated, will cost 10 millions. In a parallel case in England, an expensive scheme of fortifications is being completed from funds provided by loan, so as to distribute the charge in convenient instalments over the income of many years. In this country, however, which has an immeasurably less margin for additional taxation for the expenses of war or other emergencies, it would not have been prudent to burden the income of future years with the

greater part of an expenditure which has been actually met from present ways and means. Still, INCOME AND EXPENDITURE in reviewing the finances of the past five years this fact must be allowed for, that the income for that period has been burdened with nearly one-half of estimated charge of ten millions for barracks which will last for more than one generation.

The expenses of the Bhootan war and of famine relief works not provided for in the ordinary Public Works allotment, but otherwise charged against the income of the five years, have exceeded £640,000.

CONCLUSION.

This report may be concluded by a notice of the rapid increase of business in the Financial Department of the Government of India. Before the period of disturbance, 1857, the total number of letters received and issued from the Financial Secretariat used to range from 8,000 to 10,000 annually. At the beginning of the period under review the number stood at 24,000 annually. It now stands at 28,000.

FINIS.