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# ANNUAL REPORT

TO THE

CITY OF BIRMINGHAM EDUCATION COMMITTEE

OF THE

## SCHOOL MEDICAL OFFICER

(GEORGE A. AUDEN, M.A., M.D., M.R.C.P., D.P.H.),

INCLUDING THAT OF THE SUPERINTENDENT OF  
SPECIAL SCHOOLS,

FOR THE

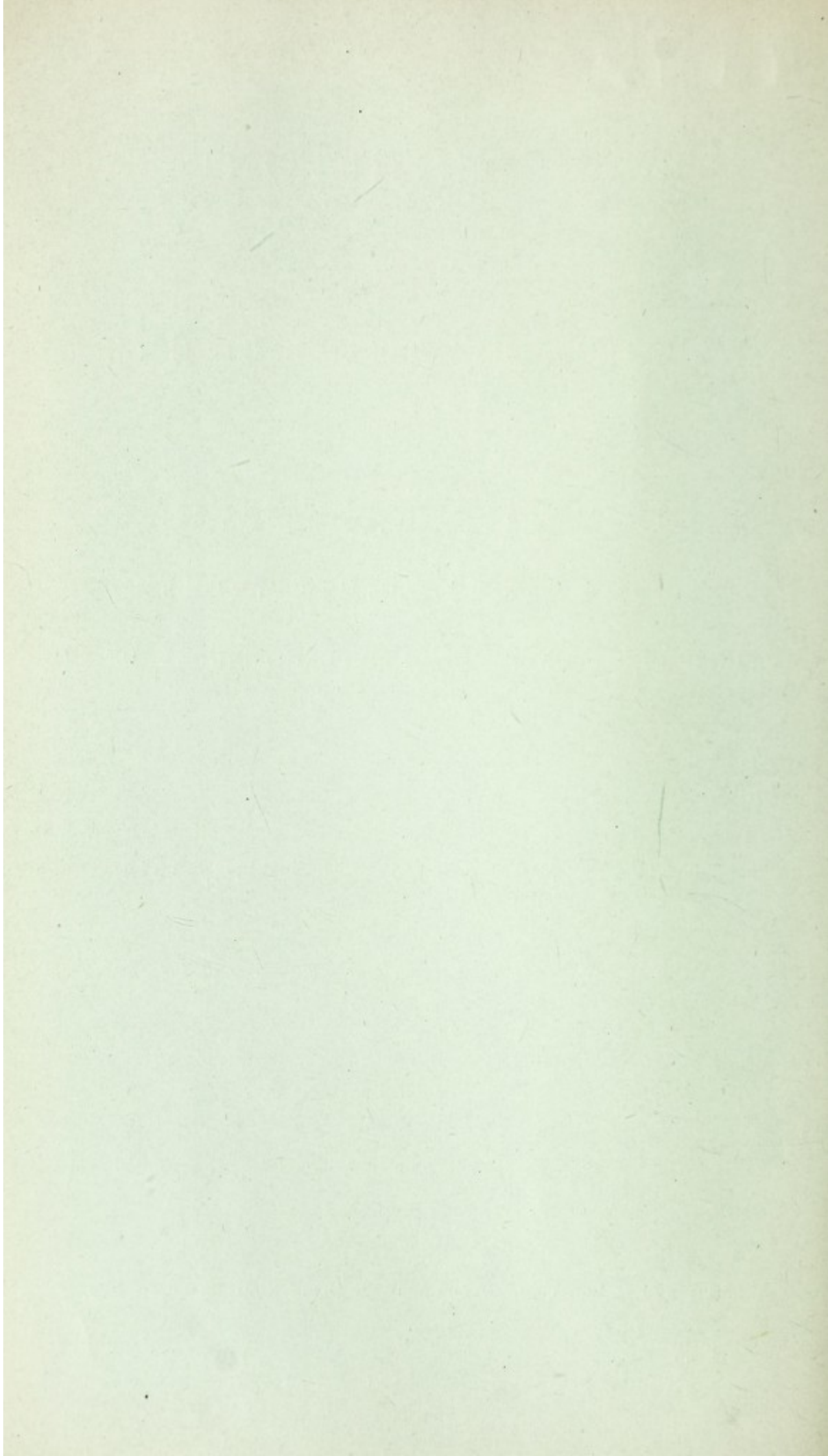
YEAR ENDED 31<sup>ST</sup> DECEMBER, 1913.

*In accordance with Circulars 576 and 596 of the  
Board of Education.*

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BIRMINGHAM :

PERCIVAL JONES LIMITED, TOWN HALL PRINTING WORKS, GREAT CHARLES STREET.



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# ANNUAL REPORT

OF THE

## SCHOOL MEDICAL OFFICER

(GEORGE A. AUDEN, M.A., M.D., M.R.C.P., D.P.H.),

FOR THE YEAR ENDED 31<sup>st</sup> DECEMBER, 1913.

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### ORDINARY ELEMENTARY SCHOOLS.

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The year under review has been an important one in the development of the work of the Medical Department, and has been marked by two notable advances in the direction of treatment, viz., the initiation of Dental Treatment and of a scheme for operative treatment of tonsils and adenoids. The scheme for the erection of a properly equipped Central School Clinic in Great Charles Street has also received the sanction of the Board of Education, the land has been bought, and it only remains to proceed with the building in accordance with the plans to be described later (page 10). Further, the treatment of certain minor external ailments has been tentatively begun at the various sub-centres, but it has been necessary to defer the development of this work until the question of the charges to be made, if any, has been re-considered,\* and until an increase in the staff of School Nurses renders a forward move possible. The development of this scheme of treatment may be said to mark the close of the first phase of the evolution of the School Medical Service. It is not, therefore, inopportune to trace shortly and in due sequence the earlier stages of this growth.

The School Medical Department came into being on the 1st September, 1908, the staff consisting of the School Medical Officer, three Assistant School Medical Officers, three School Nurses, with one Clerk. There was at first no office accommodation, until three months later a room was engaged for the purpose in the Parish Offices.

December, 1908.—Tuberculosis Register begun.

April, 1909.—Weekly examination of ringworm cases.

August, 1909.—Examination of eye defects by officers of Medical Department begun, and scheme whereby parents could buy spectacles at reduced rates.

September, 1909.—Weekly examinations by School Nurses for verminous children in the schools begun.

October, 1909.—Institution of Sick Register of children stated to be unable to attend school on medical grounds.

August, 1910.—Fourth School Nurse appointed.

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\* The Education Committee has now (March, 1914), decided to make no charge for the treatment of external minor ailments. The staff of School Nurses has also been strengthened.

December, 1910.—Epileptic Register begun. All children on this register examined each six months.

November, 1911.—Greater Birmingham formed. The staffs of the included districts consisted of:—

|                      | School Medical Officer. |            | School Nurses. |            |
|----------------------|-------------------------|------------|----------------|------------|
|                      | Full time.              | Part time. | Full time.     | Part time. |
| Aston ... ..         | 1                       | —          | 1              | —          |
| Erdington ... ..     | —                       | 1          | —              | 1          |
| Yardley ... ..       | —                       | 1          | —              | 1          |
| Handsworth ... ..    | —                       | 1          | —              | 1          |
| King's Norton ... .. | 1                       | —          | 2              | —          |
| <b>TOTAL ... ..</b>  | <b>2</b>                | <b>3</b>   | <b>3</b>       | <b>3</b>   |

Greater Birmingham was divided into six districts, with six School Medical Officers and nine Nurses. There was thus a saving of the services of two part-time County School Medical Officers. The work was further so co-ordinated that each Assistant School Medical Officer could re-visit the schools in his district three times a year. The Education Offices at Aston, Greet, and Handsworth were taken for the purposes of Inspection Clinics, and the temporary school at Fashoda Road was used in place of the Inspection Clinic at King's Norton. King's Heath House had previously been used as an Inspection Clinic, and its use has been continued.

February, 1912.—Scheme of co-operation with medical practitioners, by arrangement with the British Medical Association, concerning children absent on medical grounds.

November, 1913.—Seventh Assistant School Medical Officer appointed.

The following table shows the number of children inspected in each year:—

|                     |                |                                       |
|---------------------|----------------|---------------------------------------|
| 1908 ... ..         | 9,401          | Three officers (Sept.—Dec. only).     |
| 1909 ... ..         | 26,484         | Three "                               |
| 1910 ... ..         | 24,363         | Three "                               |
| 1911 ... ..         | 28,067         | Five full-time, 3 part-time officers. |
| 1912 ... ..         | 34,224         | Six officers.                         |
| 1913 ... ..         | 32,376         | Six "                                 |
| <b>Total ... ..</b> | <b>154,918</b> |                                       |

There is thus a regular sequence of effort, viz.:—

1. Medical inspection of children on entering and leaving school.
2. Following up of individual children found defective and facilities for special examinations at the Clinics and in the schools.
3. The special recording of tuberculous, epileptic, physically-handicapped, and ringworm cases.

4. Treatment for eye defects, teeth defects, tonsils and adenoids, ringworm, and external minor ailments.

5. The general guidance in the choice of a suitable work on leaving school.

While there exist gaps and weak places in the scheme thus outlined these provisions form a framework which can be strengthened where experience shows the need. Future developments will probably take another direction. The first stage of development has been constructive, the second must be co-operative, and every effort must be made to correlate the work of the School Medical Service, not only with the general march of educational administration, but also with all the ameliorative agencies which are already at work in dealing with child life. At the present time matters having a direct bearing upon the hygiene of the schools, the physical condition of the children, the special needs and education of defective and handicapped children, the provision of meals for delicate children, the provision of special school conditions for debilitated children, the special safeguards for children under the Employment of Children Act, and many similar matters are discussed by various Sub-Committees with little reference to the Hygiene Sub-Committee, which supervises the medical efforts of the Education Committee. Further, hygiene touches educational organisation at many points, and the services which a properly equipped and officered School Medical Department can offer to the children in the Elementary Schools would have the same value for those in attendance at Secondary Schools, where the need is in many cases equally pressing.

Similarly, though some progress has been made, co-operation with social and ameliorative agencies is at present largely lacking. Hospitals, Convalescent Homes, Charities, and Social Service Committees each having the improvement of the condition of child life in view, work to a great extent independently for want of a unifying centre. This unification of effort can in truth best be found by a proper development of the School Medical Department, which alone covers the whole area, and has the necessary powers and organisation. On the staffs of the various voluntary hospitals there is a large body of expert medical and surgical knowledge which is available, and members of the staffs, especially of the Children's Hospital, have kindly examined or taken under their care cases of special interest which have been sent to them. Both the aural and ophthalmic surgeons to the Committee draw attention in their reports (see page 19 and page 17) to the fact that the possession of beds in the hospitals to which they are also attached has enabled them to treat as in-patients a number of children who were in need of special operative treatments.

A beginning of almoner work was carried out by Miss Averay-Jones (see page 19), in co-operation with the Charity Organisation Society and City Aid Society, and the continuance of this work is most desirable. With the development of Medical Care Committees the need for almoner work of this kind will be accentuated. The appointment of a fully-trained social worker to undertake this co-operation and the organisation of medical care will then be imperative. A similar co-operation which is now being organised in conjunction with the Health Department is very desirable with those agencies which deal with the children before admission to school life, Infants' Health Societies, Kindergarten Associations, etc., or during school life in the case of children who are being treated for prolonged illness, such as tuberculosis, so that all possible information is forthcoming for the good

of the individual child, and that each medical schedule should form a complete *dossier* of the child's physical progress throughout his school life, which in turn should be available when he enters upon industrial life.

#### ORGANISATION AND CHANGES IN STAFF.

For service at the Adenoid Clinic Mr. Wilfrid Glegg, M.D., F.R.C.S. (Edin.), Assistant Surgeon at the Birmingham Ear and Throat Hospital, was appointed Aural Surgeon, with Mr. Bracey Dale, M.R.C.S., Anæsthetist to the Ear and Throat Hospital, as Anæsthetist. After the resignation of Mr. Kelsey, M.R.C.S., L.D.S., as Senior Dental Surgeon, Mr. Rollinson Whitaker, F.R.C.S. (Eng.), L.R.C.P. (Lond.) was appointed as Anæsthetist to the Dental Clinic.

In July Dr. Sophie Jackson, Assistant School Medical Officer, left to take up a similar appointment in Leeds. Her place was taken by Miss M. D. Hancock, M.D., late Assistant School Medical Officer, Gloucestershire. In the same month Dr. Ernest Hill left to become Medical Officer of Health of East London, South Africa, and was succeeded by Miss Elizabeth Moffett, M.D., B.Sc. (Lond.), late Assistant School Medical Officer, Staffordshire. In November Mr. F. G. Rose, M.B., B.C., succeeded Dr. Stansfield, now Assistant School Medical Officer, Somerset County Council. The growth and increasing complexity of the work rendered additional help imperative, and in November an additional division was made, for which Mr. J. H. Bampton, M.B., B.Sc., late Myers Travelling Fellow, University, Birmingham, was appointed. There are thus seven districts, each under the supervision of one Assistant School Medical Officer, with two School Nurses (January, 1914). Each nurse assists at routine inspection in alternate weeks, while the other nurse is engaged in re-visiting schools, following up individual cases and in minor ailment treatment. Generally speaking, each Assistant School Medical Officer divides his time as follows:—

|   |     |     |     |     |             |  |
|---|-----|-----|-----|-----|-------------|--|
| Routine Inspection  | ... | ... | ... | ... | 6 half-days | } With periodic<br>work on<br>Saturdays. |
| Re-visiting Schools                                       | ... | ... | ... | ... | 1 half-day  |  |
| Examinations  | ... | ... | ... | ... | 1 "         |  |
| Inspections at Clinics                                    | ... | ... | ... | ... | 1 "         |  |
| Supervision Minor Ailment Treatment,<br>Anæsthetics, etc. | ... | ... | ... | ... | 1 "         |  |

#### SUMMARY OF WORK DONE BY THE SCHOOL MEDICAL OFFICER.

|  |     |     |     |     |     |
|--|-----|-----|-----|-----|-----|
| Visits to Elementary Schools                     | ... | ... | ... | ... | 106 |
| „ Special Schools                                | ... | ... | ... | ... | 66  |
| „ Open-air School                                | ... | ... | ... | ... | 11  |
| „ Homes of Children                              | ... | ... | ... | ... | 3   |
| „ Feeding Centre                                 | ... | ... | ... | ... | 1   |
| „ Remand Home                                    | ... | ... | ... | ... | 35  |
| „ Partially-Blind Day Class                      | ... | ... | ... | ... | 4   |
| „ Monyhull Colony                                | ... | ... | ... | ... | 1   |
| „ Handsworth Adenoid Clinic                      | ... | ... | ... | ... | 14  |
| „ Hospitals, Infirmary, etc.                     | ... | ... | ... | ... | 9   |
| „ Women's Settlement (examination of children)   | ... | ... | ... | ... | 3   |
| „ Institutions where special cases are supported | ... | ... | ... | ... | 4   |
| „ Police Courts                                  | ... | ... | ... | ... | 2   |

|   |     |
|---|-----|
| Staff interviewed at office ... ..  | 109 |
| Staff interviewed at home ... ..  | 6   |
| Consultations with medical practitioners on members of staff ... ..                 | 10  |
| Examinations for Board of Education Certificates ..                                 | 45  |
| "  of Caretakers at office ... ..   | 17  |
| "  "  at homes ... ..   | 2   |
| Admission examinations for Open-air School ... ..                                   | 7   |
| Periodic examinations for Open-air School ... ..                                    | 3   |
| Examinations of children transferred from Open-air School to ordinary school ... .. | 6   |
| Admission examinations for Special Schools ... ..                                   | 18  |
| Examinations of epileptics. (Epileptic register) ...                                | 10  |
| Number of boys examined for Bursarships ... ..                                      | 28  |
| Number of boy Pupil Teachers examined ... ..  | 14  |

In addition to the above a very large number of children, who have been referred to him for special reasons, have been examined by the School Medical Officer.

#### ROUTINE INSPECTIONS IN THE SCHOOLS.

The percentage of parents who took advantage of the invitation to be present at the examination of their children has shown a very satisfactory increase (72 per cent.), though it does not reach the high percentage which was shown in the earliest years of medical inspection (79 per cent.). It cannot be too strongly insisted upon that the presence of the parents is of fundamental importance to the realisation of the object of the inspection, and every inducement should be offered to the parents to meet the examining School Doctor on this occasion.

The close approximation of the percentages of the different defects found in the years 1912 and 1913, as is seen in the accompanying table, argues the substantial accuracy of their distribution amongst the school population.

|                          |  |        |        |
|--------------------------|--|--------|--------|
|                          |  | 1913.  | 1912.  |
| Children Examined ... .. |  | 32,376 | 34,224 |
| Parents present ... ..   |  | 23,511 | 23,082 |
| Percentage ... ..        |  | 72·6   | 67·5   |

#### Defects Found.

|   | TOTAL. | Per-centage, 1913. | Per-centage, 1912. |
|---|--------|--------------------|--------------------|
| <b>1. EYES :—</b>                                     |        |                    |                    |
| (a) Vision ( $\frac{1}{2}$ or less) all causes ... .. | 3,265  | 10·1               | 10·5               |
| (b) Squints ... ..                                    | 969    | 3·                 | 2·6                |
| (c) Corneal Ulcers, Opacities, and Keratitis ...      | 308    | ·96                | ·6                 |
| (d) Other Eye Defects ... ..                          | 393    | 1·2                | ·99                |
| <b>2. EARS :—</b>                                     |        |                    |                    |
| (a) Hearing Defective, all causes ... ..              | 1,084  | 3·3                | 3·6                |
| (b) Otorrhœa ... ..                                   | 666    | 2·1                | 3·                 |
| <b>3. NOSE AND THROAT DEFECTS :—</b>                  |        |                    |                    |
| (a) Tonsils or Adenoids ... ..                        | 2,550  | 7·9                | 9·                 |
| (b) Other Defects ... ..                              | 341    | 1·                 | ·6                 |
| <b>4. CHEST :—</b>                                    |        |                    |                    |
| (a) Phthisis—certain ... ..                           | 100    | ·3                 | ·3                 |
| (b) Phthisis—doubtful ... ..                          | 215    | ·7                 | ·4                 |
| (c) Other Lung Diseases ... ..                        | 645    | 1·9                | 1·9                |
| (d) Heart Disease—congenital ... ..                   | 93     | ·2                 | ·63                |
| (e) Heart Disease—acquired ... ..                     | 489    | 1·5                | 1·3                |

|   | TOTAL. | Per-centage, 1913. | Per-centage, 1912. |
|---|--------|--------------------|--------------------|
| 5. CHOREA ... ..                                      | 85     | ·2                 | ·2                 |
| 6. EPILEPSY—including Petit Mal (undoubted cases) ... | 83     | ·2                 | ·2                 |
| 7. HERNIA ... ..                                      | 81     | ·2                 | ·2                 |
| 8. ANÆMIA (marked cases only) ... ..                  | 221    | ·7                 | ·3                 |
| 9. SPEECH DEFECTS ... ..                              | 225    | ·7                 | ·4                 |
| 10. DEFORMITIES (excluding Paralysis) ... ..          | 277    | ·9                 | ·8                 |
| 11. PARALYSIS :—                                      |        |                    |                    |
| (a) Upper Limbs .. ..                                 | 32     | ·09                | ·09                |
| (b) Lower Limbs ... ..                                | 58     | ·2                 | ·1                 |
| 12. SCALP DISEASE :—                                  |        |                    |                    |
| (a) Ringworm ... ..                                   | 243    | ·7                 | ·8                 |
| (b) Other ... ..                                      | 144    | ·4                 | ·3                 |
| 13. SKIN DISEASE ... ..                               | 372    | 1·1                | ·8                 |
| 14. OTHER DEFECTS ... ..                              | 927    | 2·9                | 3·7                |

## SCHOOL CLINICS.

*The Dental Hospital Clinic.*—The accompanying plan shows the arrangement of that part of the Dental Hospital which is used as a School Dental Clinic. The parents proceed from the waiting room into the examination room, where they are interviewed, and the assessment of the monetary payment is made. There are two chairs in the operation room used by the two part-time Dental Surgeons. After treatment the parents meet their children in the recovery room, and leave the Clinic by the stairway near it, an arrangement which prevents any intermingling of treated and untreated patients. Should gas be required, the other operation room is used, together with the contiguous recovery rooms. The blank wall forming the side of the passage abuts upon the site of the proposed School Clinic (see plan). When this is built the two together will, to all intents, constitute a single clinic.

*The Proposed School Clinic.*—The plans for this building have received the sanction of the Board of Education, and it is hoped that they will be ready for use by the end of the present year. The dip of the surface allows a basement containing a boilerhouse and a room for bicycles. The ground floor consists of a clerk's room, with a window hatch for enquiries, opening into the lobby, which leads to a large waiting room, lighted from the area by six windows. This will be divided into two by a movable partition, so that it can be used at any time as a hall for parents' evenings and meetings of a similar kind. Beneath the staircase leading to the higher floors is a dressing room, which opens into a medical examination room. Patients can pass out into the lobby either from the dressing room or the examination room. A hand basin with hot and cold water will be placed in the latter room. At the further end of the waiting room are rooms for the treatment of minor ailments and for electrical equipment for X-ray treatment, etc. A short recessed lobby leads to a bath room and two closets. These recesses might supply room for a gas-heater and cupboard for crockery, in order that some form of light refreshment could be obtained for a small payment by patients who desire it.

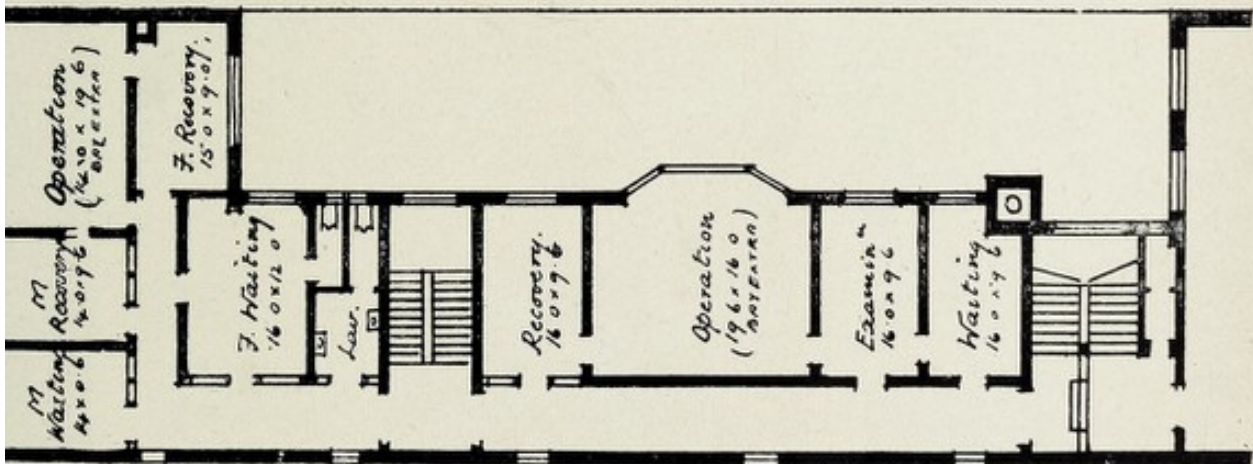
The first floor is planned on similar lines, with the exception of the dressing room. The room labelled "Lady Clerk" is intended as an office for any members of the female staff. The dark room will be used for the examination of eyes; that temporarily labelled "Store



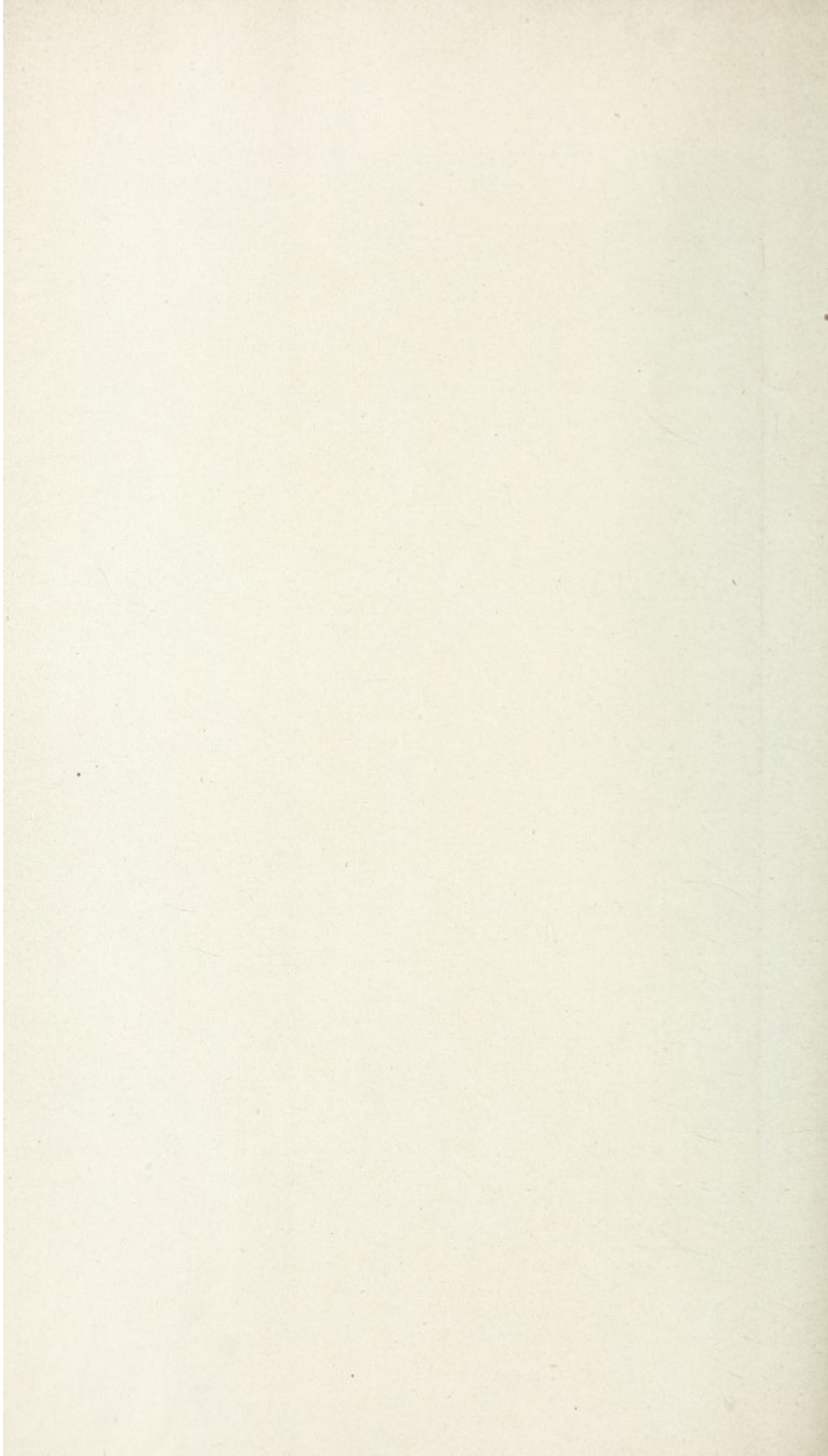
ROOF CLASS: ST. THOMAS' C.E. SCHOOL.

[Photo. G. A. A.]

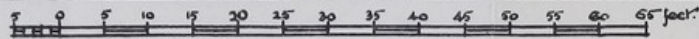
(See page 28.)



PLAN OF SCHOOL, DENTAL CLINIC, DENTAL HOSPITAL.

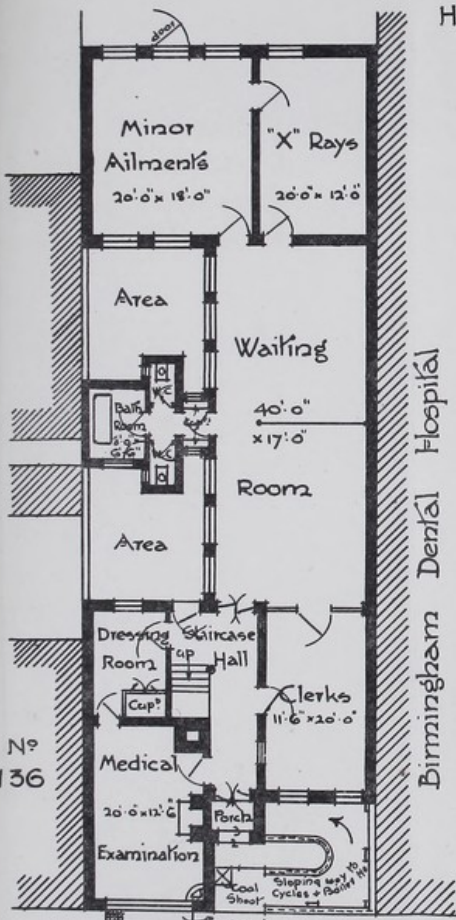


· CITY · OF · BIRMINGHAM · EDUCATION · COMMITTEE ·  
 · PROPOSED · PREMISES · IN · GREAT · CHARLES · STREET · FOR ·  
 · THE · MEDICAL · TREATMENT · OF · SCHOOL · CHILDREN ·



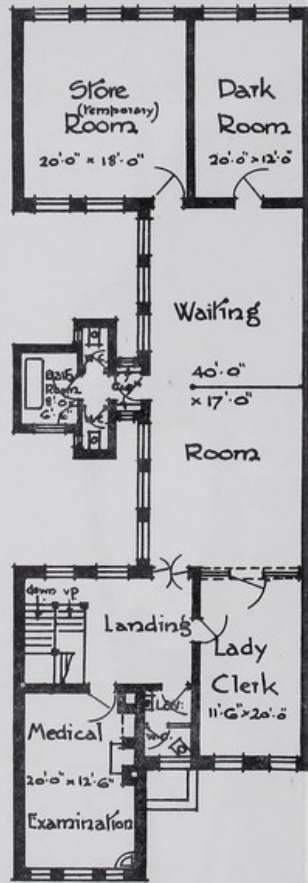
Scale: 16 feet to an inch.

H. T. BVCKLAND, Architect to the Committee



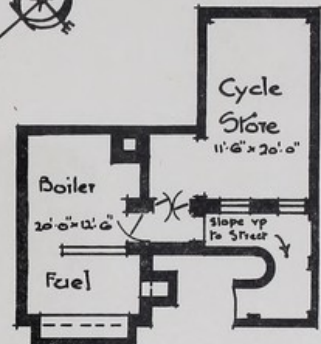
· GROUND FLOOR ·

· PLAN ·



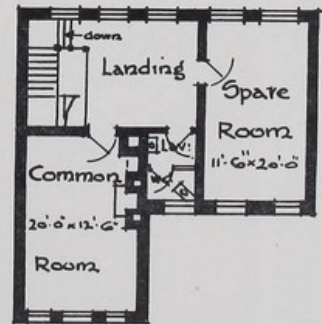
· FIRST FLOOR ·

· PLAN ·



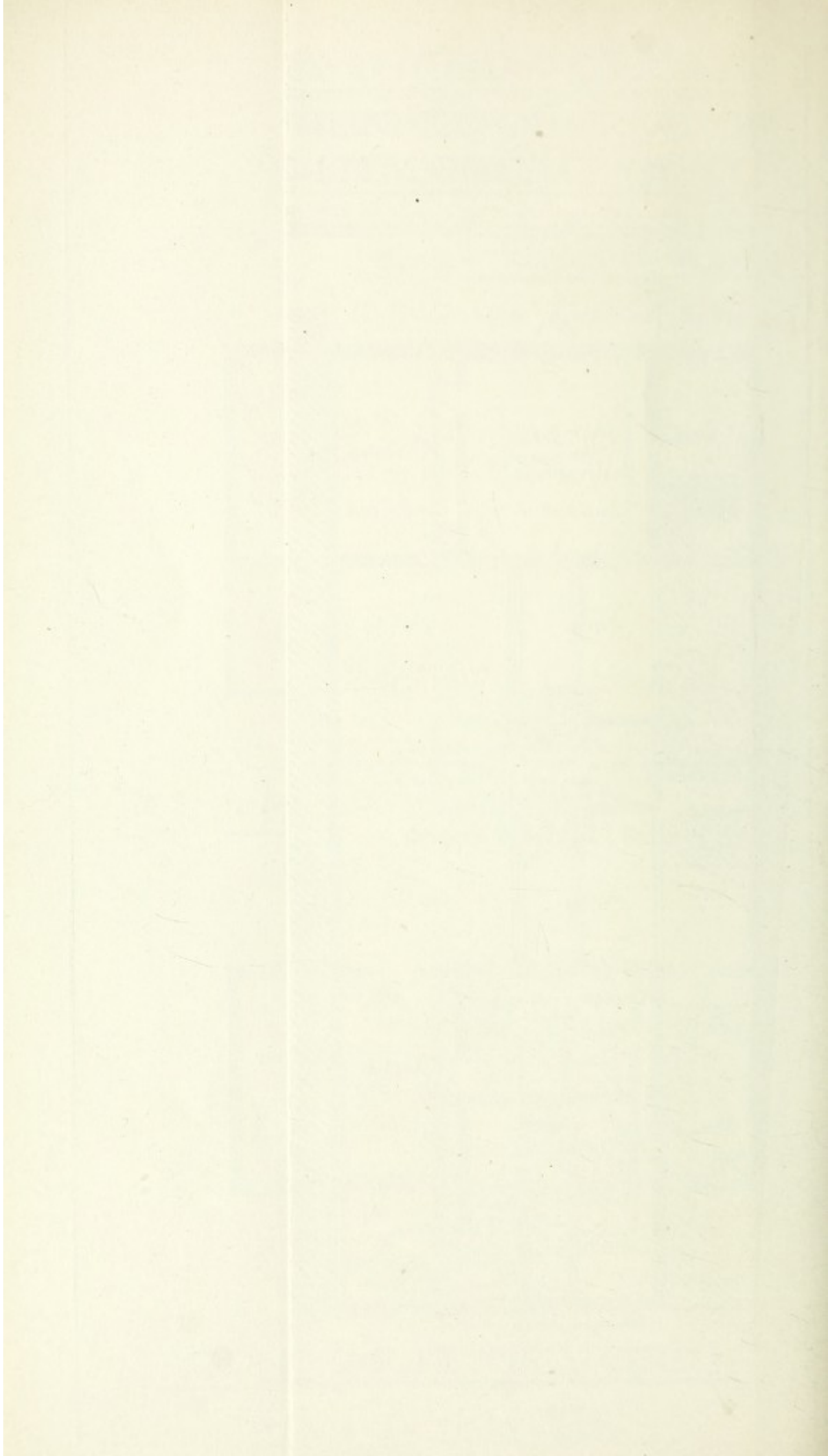
· BASEMENT ·

· FLOOR PLAN ·



· SECOND FLOOR ·

· PLAN ·



Room" can be utilised for any purpose for which it may be found necessary; for example, the treatment of minor ailments and ringworm. This also applies to the " spare room." The common room will be for the use of meetings of the medical staff; it will serve as a library, and probably also as a laboratory for the microscopical examination of ringworm hairs and similar purposes. The roof of the waiting room will be flat, but at any time an additional room can be added here and above the back rooms. The area offers an opportunity for the provision of an orthopædic gymnasium for the curative treatment of deformities by exercises, massage, etc., similar to that established at Dunfermline.

#### TREATMENT AND INSPECTION CENTRES.

There are now seven Centres in various parts of the City equipped for detailed examination and treatment. It is hoped that each of these Centres will act as a central point, round which the medical supervision of each district is organised.

The following table shows the number of half-days each week devoted to the various branches of the work:—

| CENTRE.  | Inspection. | Eyes.     | Teeth.    | Minor Ailment Treatment. | Ring-worm Clinic. | Adenoids.      | TOTAL.    |
|--|-------------|-----------|-----------|--------------------------|-------------------|----------------|-----------|
| Aston (Education Office)... ..                                 | 2           | —         | 8*        | 2                        | —                 | —              | 12        |
| Gem Street (Basement of Special School). Opened January, 1914. | 3           | —         | —         | 1                        | 1                 | —              | 5         |
| Greet (Education Office)... ..                                 | 2           | 1         | 8*        | 1                        | —                 | —              | 12        |
| Handsworth (Education Office)... ..                            | 1           | 1         | 8*        | 1                        | —                 | 1<br>(10 beds) | 12        |
| King's Heath House (King's Heath Park).                        | 1           | —         | —         | 1                        | —                 | —              | 2         |
| Selly Park (Fashoda Road) ... ..                               | 1           | —         | 8*        | 1                        | —                 | —              | 10        |
| Infirmery, Dudley Road. Opened January, 1914.                  | —           | —         | —         | —                        | 2<br>(X-Ray)      | —              | 2         |
| Central Education Office ... ..                                | 1           | 9         | —         | —                        | 1                 | —              | 11        |
| Dental Hospital ... ..   | —           | —         | 5†        | —                        | —                 | —              | 5         |
| <b>TOTAL</b> ... ..  | <b>11</b>   | <b>11</b> | <b>37</b> | <b>7</b>                 | <b>4</b>          | <b>1</b>       | <b>71</b> |

\* Whole-time Dental Surgeons.

† 2 Part-time Dental Surgeons.

The utility of these Centres is reflected in the large number of children who are examined in each week. Being within a moderate distance from their homes, parents find that a visit to the local centre entails much less loss of time than a journey to the City or to the Hospitals, and, in order to keep the work from growing out of all proportion to that of medical inspection in the schools, it is necessary to limit the children seen strictly to those who are chosen by the Assistant School Medical Officer, or for whom appointments are made from the Central Office or who are recommended through the school. Even with this limitation the number of children who are examined at the Centres is greater than the time available for this purpose really admits.

## PAYMENTS MADE BY PARENTS.\*

The money actually received as contributions from parents for treatment of their children is as under:—

|                             | £     | s. | d. |
|-----------------------------|-------|----|----|
| Spectacles ... ..           | 149   | 19 | 5  |
| Dental treatment ... ..     | 258   | 7  | 0  |
| Tonsils and adenoids ... .. | 6     | 2  | 4  |
| Minor ailments ... ..       | 0     | 5  | 2  |
|                             | <hr/> |    |    |
|                             | £414  | 13 | 11 |

This sum appears to be considerable, but the cost of collection has to a large extent absorbed it. This remark is not so applicable in the case of spectacles for two reasons. The parents know beforehand the sum which they will be expected to pay, and appear to be more ready to pay for something which is tangible. Moreover, each child is measured for its glasses, and receives them at the Education Office, Council House, and can thus bring the money with it.

In the case of the teeth, however, parents have not yet been educated in the value of preventive treatment of the teeth of their children. They believe that the condition of the temporary teeth is quite immaterial, as in the course of time these will fall out, and they have a deeply rooted belief that dentistry consists in nothing more than "drawing teeth." In one school, in which only sixteen parents elected to have dental treatment for their children, no less than 45 showed that their objection was based on this idea. Under these circumstances the addition of a fee, however small, served to clinch the refusal. In other words, parents are not yet ready to pay for preventive treatment. This difficulty will be intensified when the children are re-examined in subsequent years, and without this re-examination and the prevention of subsequent decay, the work done on the teeth will, to a great extent, be thrown away. When parents realise that the preservation of the teeth entails a recurring annual expenditure, however small, they will be less likely to make a beginning. This difficulty could be obviated by the introduction of a provident scheme, whereby for a small fixed annual subscription the teeth would be kept in a healthy condition during school life. Such a scheme could also include the treatment of other defects, such as the provision of spectacles, or the removal of adenoids, the treatment of external minor ailments, etc.

A scheme of this kind could be tried in association with the Medical Care Committee, and would have many advantages, *e.g.*:—

1. It is constructive in that it inculcates providence and thrift.
2. It obviates the difficulty of a sliding scale, with its attendant misunderstandings.
3. It does not press largely on the parent whose child suffers from several defects.
4. It would encourage parents to continue to keep their children under dental and other supervision during their school life.
5. It would greatly simplify the clerical part of the work.
6. It might be run in conjunction with the School Penny Banks.

\* Since this Report was prepared the Education Committee has modified its charges for treatment, which are now:—

|                               |    |         |
|-------------------------------|----|---------|
| a. Provision of Spectacles .. | 2  | 6       |
| b. Dental Treatment ..        | 0  | 6       |
| c. Tonsils and Adenoids ..    | 2  | 0       |
| d. Treatment of Ringworm ..   | No | charge. |
| e. External Minor Ailments .. | No | charge. |

The experience obtained in working a sliding scale has been a valuable one. The following report by Miss M. W. Averay-Jones, who was responsible for the work, on the difficulties met with in working it may prove of use to other local authorities:—

(a) There are many difficulties with regard to the sliding scale of charges. \*

(1) In the first place the words "*A small charge will be made. In cases where they are satisfied that the parent is unable to pay the amount, the Committee will reduce or excuse the payment after due enquiry as to income. The charge for treatment will in no case exceed 2s.*," in the circulars addressed to the parents are somewhat misleading. The parents who feel that they cannot pay 2s. come to the Clinics without money, thinking that in their case payment will be excused. When they are interviewed and assessed according to their means a promise is made that the money will be sent up to the Clinic. This promise is rarely kept, and so from week to week arrears accumulate. A number of these small debts are now collected by the officers appointed for this work, and often several visits are necessary to collect threepence or one penny.

(2) Many children are sent to the Clinics alone, or in charge of neighbours (who can give little information concerning the family), because both parents are at work. It is practically impossible to see the parents in those cases, and after a few letters have been sent to them without result further pressure for payment is withheld, as to institute magisterial proceedings for the recovery of a few pence could scarcely be considered. The feeling spreads that payment will not be pressed for.

(3) Again, much resentment is occasioned among parents because one child has had several fillings and extractions under gas, and pays the sum of one penny, while the parents of another child who has had its temporary teeth extracted pay 1s. or 2s.

Parents complain that false statements are made and accepted, and as it is impossible to verify more than a few of the statements made, it is more than probable that the least honest and straightforward parents fare the best.

The women who bring the children are frequently quite ignorant of their husband's exact income, and in one case it was found that the father of a child for whom one penny had been paid in respect of dental treatment earned £3 10s. a week, and was a heavy drinker.

Thus the sliding scale has a distinctly demoralising influence on those people whom it is intended to benefit.

(b) There is a large class of children who fall below the "poverty line," and must accordingly be designated simply as "necessitous." In the homes from which they come there is no settled income. The fathers are casual labourers, more often out of work than in employment. Money is spent as soon as it is earned, and the attempt to collect payment for dental or medical treatment is hopeless, and much money is wasted in the endeavour.

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\* See footnote, previous page.

(c) The work entailed in collecting the debts is excessive. Money collected and brought to the office has to be entered in the cash books of the Clinic to which it is due, and the amounts placed to the parents' credit. A record of each case reported "hopeless," "left address," "unable to pay owing to parents being out of work," etc., must be kept, and too much time is expended over this.

(d) The filling-up of assessment forms in addition to a considerable amount of book-keeping, falls heavily on the nurses at the outlying Clinics. It is often quite impossible for the nurse to divide her attention between the dentist, the children, and the parents claiming reduction of payment. After a busy afternoon the nurse is often kept more than an hour over-time doing clerical work.

#### DENTAL TREATMENT.

Dental treatment was begun at the beginning of the year with a staff of two whole-time and two part-time officers at Aston, Fashoda Road, and the Dental Hospital. A Clinic was opened at Handsworth in October, and another at Greet in November.

The fact that the dentists did not carry out a preliminary inspection in the schools at first militated greatly against the success of the scheme, and much of the time of the officers was wasted by the failure of the children to attend to have their teeth examined, and, if necessary, treated. The parents were not prepared to pay "a sum not exceeding 2s.," as stated in the circular,\* for treatment of which they could not understand the necessity. With the change in the method of working, a rapid improvement was seen, and now the dental staff is more than fully occupied.

The following table shows the actual amount of work accomplished:—

| CLINIC.          | No. of Attendances. |        | AGE.          |                                   | EXTRACTIONS.   |                 | Anes-<br>thetics | FILLINGS.       |                 | Dress-<br>ings. |
|------------------|---------------------|--------|---------------|-----------------------------------|----------------|-----------------|------------------|-----------------|-----------------|-----------------|
|                  | Boys.               | Girls. | 6-8<br>years. | Over or<br>under<br>6-8<br>years. | Per-<br>manent | Temp-<br>orary. |                  | Perma-<br>nent. | Temp-<br>orary. |                 |
| Dental Hospital  | 1303                | 1279   | 2075          | 507                               | 1097           | 6998            | 1074             | 1620            | 1044            | 58              |
| Aston ... ..     | 883                 | 912    | 1580          | 215                               | 265            | 3326            | 973              | 878             | 1422            | 300             |
| Fashoda Road ... | 701                 | 616    | 1170          | 147                               | 129            | 2673            | 696              | 1214            | 685             | 9               |
| Handsworth ...   | 235                 | 233    | 415           | 53                                | 41             | 1037            | 206              | 335             | 571             | 19              |
| Greet ... ..     | 202                 | 181    | 300           | 83                                | 48             | 553             | 259              | 129             | 242             | 10              |
|                  | 3324                | 3221   | 5540          | 1005                              | 1580           | 14587           | 3208             | 4176            | 3964            | 396             |

A specially prepared tooth brush can be obtained by children at a cheap rate at each of the Clinics.

Mr. N. A. Austin, L.D.S., has drawn up the accompanying report.

The Birmingham Dental Clinics have now been in operation for twelve months. The great majority of children treated have been between the ages of 6 and 8 (5,540 against 1,005). Even at this early age experience has shown that:—

\* See footnote page 12.

- (a) Caries is practically always present.
- (b) Oral sepsis is extremely frequently found.
- (c) The first permanent molar is often involved—sometimes hopelessly. (1,580 permanent teeth almost entirely confined to the first molar have had to be sacrificed.)

The first permanent molar is accepted as the most valuable tooth *at this age*, and all modern dental treatment tends to strive for its preservation.

With reference to the temporary teeth, examination of the statistics reveals that for every tooth that is capable of being saved 3·5 are not; that is to say, for every tooth that can be filled 3·5 have to be extracted.

The percentage varies at the different Clinics from 2 to 1 at Handsworth and Greet, to 7 to 1 at the Central Clinic.

This is explained by the following facts:—

- (a) The Central Clinic deals with the lowest classes socially.
- (b) Cases obviously in primary need of radical treatment are selected by the visiting Dental Surgeons and sent to the Central Clinic, owing to the greater facilities it offers for operative work.

With regard to permanent teeth, 4,176 have been filled, with a corresponding sacrifice of 1,580—roughly 2·5 to 1. (Here again the percentage varies at the different Clinics, and for the same reasons.

These figures have been taken in both cases from the *whole* number of children treated, irrespective of age. From them it will be seen that 16,167 teeth have been removed and 8,140 filled.

Various surgical complications of advanced dental caries are surprisingly common. Dental abscess, ulceration of gum or cheek, necrosis of jaw, etc. Conditions such as these make operative treatment not merely desirable, but immediately essential.

I beg to suggest the reference of at any rate the major extraction cases to the Central Clinic.

The Dental Hospital offers many structural advantages for the treatment of these cases. It has a well-appointed operating theatre, with waiting and recovery rooms, a theatre nurse highly trained in this work, and an anæsthetist.

The reverse is the case in the Suburban Clinics, for whereas they possess none of the foregoing, they are provided with fountain spittoons, which are so great an aid to conservative work, and which are not fitted in those parts of the Dental Hospital used by the Central Clinic for that purpose.

It would be extremely desirable that many, if not all, of the children treated should be seen again at the end of *six* months; it is practically essential that they should be seen again at the end of *twelve* months.

It appears that parents of the children should be given short personal interviews with the officers of the Clinic at the first examination of the children's mouths.

The object of this would be:—

(a) To explain to them the course of treatment suggested. One very important, very common condition, which leads to much misunderstanding, is that in which the formation of secondary dentine has taken place in a carious tooth. A tooth such as this may present a hopeless appearance, and yet may not require either filling or removal, and its preservation for a time may be a matter of vital importance to the after-history of the child's mouth.

(b) To explain to them the desirability of personal attention to a mouth, even after it has been put in order.

(c) To give them advice on the selection of food suitable to children from a dental point of view.

Knowledge of the two latter seems to be singularly lacking in those persons with whom the officers of the Birmingham Dental Clinic have to deal.

#### EYESIGHT AND THE PROVISION OF SPECTACLES.

The number of children examined by the Assistant School Medical Officers was 814, for whom 771 pairs of spectacles were prescribed, viz. :—

|                                     |            |              |                             |            |              |
|-------------------------------------|------------|--------------|-----------------------------|------------|--------------|
| Hypermetropia ... ..                | 219        | 25·9%        | Myopia ... ..               | 35         | 4·3%         |
| Hypermetropic<br>astigmatism ... .. | 448        | 55·0%        | Myopic astigmatism ...      | 58         | 7·1%         |
|                                     |            |              | Mixed astigmatism ...       | 54         | 6·6%         |
| <b>Total long-sight ...</b>         | <b>667</b> | <b>81·9%</b> | <b>Total short-sight...</b> | <b>147</b> | <b>18·0%</b> |

The arrangement whereby the parents pay a flat rate for all kinds of spectacles (subject to reduction in cases of poverty) has worked smoothly and effectively. The amounts for the year are as under:—

|                    |           |
|--------------------|-----------|
| Amount payable ... | £197 17 6 |
| Amount paid ...    | 149 19 2  |

Appended is the Report of the Committee's Ophthalmic Surgeon, Mr. R. Beatson Hird (Ophthalmic Surgeon to the General Hospital and Assistant Surgeon to the Birmingham Eye Hospital):—

During the school weeks in the year 1913 I was in attendance at the Education Office on 85 mornings for the treatment of school children suffering from defective eyesight and other ocular conditions. The number of new cases seen was 968, with a morning average of 11·4. Of these, 808 were found to require spectacles, so that an average of 9·5 pairs were prescribed every morning. The remaining 160 children did not require treatment by spectacles. Some of them already had glasses, but many were suffering from inflammatory and other conditions.

During the year I also saw many of the children who had been ordered glasses and other treatment the previous year. The number of old cases so seen amounted to 460, with a morning average of 5·4, so that the total number of children seen during the year was 1,428, making a morning average of 16·8. This was found to constitute a full morning's work.

The analysis of the new glass cases works out as follows:—

|                                       |            |           |              |
|---------------------------------------|------------|-----------|--------------|
| (1) Hypermetropia (long sight) ... .. | 233        | or        | 28·8%        |
| (2) Hypermetropic astigmatism ... ..  | 437        | or        | 54·0%        |
| <b>Total long-sight cases ...</b>     | <b>670</b> | <b>or</b> | <b>82·8%</b> |

Amongst these were 275 children suffering from squints, forming 34 per cent. of the cases seen.

|                                 |     |    |       |
|---------------------------------|-----|----|-------|
| (3) Myopia (short sight) ... .. | 33  | or | 4.0%  |
| (4) Myopic astigmatism .. ..    | 75  | or | 9.2%  |
| (5) Mixed astigmatism ... ..    | 30  | or | 3.7%  |
| Total short-sight cases ...     | 138 | or | 16.9% |

All the children suffering from squint received a printed leaflet of instructions how to train the squinting eye to see. In a number of cases the eye was almost blind.

In every case of short sight a printed leaflet of instructions was given to the child, in order to take every precaution against it becoming worse.

Amongst the new cases seen 56 were suffering from scars on the cornea, more or less impairing the vision. They amounted to 6.9 per cent. Many of the cases were quite hopeless, and could only be educated in the Partially-blind School. As they cannot become efficient citizens, and must be educated at a considerable additional cost to the community, it is imperative that these be treated as early as possible. Most of the scars were due to strumous keratitis, and a number of the children were proved to be definitely tuberculous.

The old cases seen consisted for the most part of children suffering from squint and short sight. The squinting children were seen in order to find out how they were getting on, and in a number of cases the result was very satisfactory. A number of eyes (which were almost blind when first seen) had good, useful vision, and in the greater number the squinting eye had become straight. The short sight cases were re-tested, to see if the short sight was increasing, and, where it was considered necessary, children were excluded from school or sent to the Partially-blind School. In Birmingham we need more accommodation for these partially-blind children, and I welcome the news that there is to be another Partially-blind School opened, as the one at Edgbaston is full, and, in addition, it is very inconvenient, if not quite impossible, for many of the children who live far away from it.

Treatment was undertaken in a number of cases not requiring spectacles. Inflammatory conditions were treated in 104 cases. To those who could afford, prescriptions numbering 51 were given. The children attended on my mornings for me to see that the treatment was being carried out properly. Where the treatment was simple and the parents too poor, remedies were provided by the Department in the form of various ointments. We hope to be able to extend this in time. The more severe cases were put under my charge at hospital, where I could follow up the treatment to the advantage of the Education Committee. Some cases of cataract and squint required operating upon, and these I admitted under my care at hospital, where I performed the necessary operations. As a rule there was no difficulty in obtaining the admission tickets from one source or another, and there was a minimal delay in getting the treatment carried out.

Despite the fact that 1,782 new cases were thus seen by the medical staff during the year, and 1,579 pairs of spectacles prescribed,

there are at the present time more than 900 names on the waiting list, and over 400 names have been struck off from various causes, *e.g.*, left school, etc. An exhaustive enquiry into the cause of this high incidence of ocular defect is needed, but there are certain known facts which associate school attendance during the earlier years of childhood with the frequency with which squints and errors of refraction are found. The human eye at birth is hypermetropic, and too early an application to near work tends to produce muscular tension and permanent eye defect. It is argued with considerable force that no child should be allowed to enter school until the eye has been proved, by examination, to have become emmetropic. Every care should moreover be exercised in the choice of school books, that the type and setting shall produce no deleterious influence upon the eye. (See Report on the Influence of School Books on Eyesight, British Association, Birmingham meeting, 1913.)

#### TONSILS AND ADENOIDS.

Owing to various circumstances the Tonsil and Adenoid Clinic was not ready for use until the beginning of October. From October to December 66 operations were performed.\*

When a child has been recommended for operation one of the School Nurses visits the home and explains what preparations are necessary. She also forms a judgment as to the family circumstances, and assesses the payment to be made according to scale. This visit is useful, in that the nurse is often able to explain away prejudice against operation.

On the operation morning (Friday) three School Nurses are in attendance in charge of the theatre, the ward, and the waiting room respectively. Two nurses remain for the day, and one nurse takes the night duty, and discharges the children on the following (Saturday) morning. Much help is also given by the Caretaker.

Dr. E. J. Moffett, Assistant School Medical Officer, visits the Clinic at mid-day, and also in the early evening. She will now also be on the premises the whole day, engaged either with refractions or minor ailment treatment. I also generally visit the Clinic in the course of the day. The Clinic is, in addition, connected with the telephone, so that it would appear that there is little danger of any untoward occurrence. No case of secondary hæmorrhage has occurred.

Each child is excluded from school for a week, and is examined either at the Central Office by me or at one of the Centres before he or she is returned to school, and detailed instructions are given concerning breathing exercises, the use of the handkerchief, etc. A special notice is also sent to the school which each child attends, drawing attention to the importance of the proper execution of these exercises. By these means it is hoped that the maximum benefit will accrue in each case operated upon at the Committee's Clinic.

Appended hereto is the report by Dr. W. Glegg (Assistant Aural Surgeon, Birmingham Ear and Throat Hospital), Aural Surgeon to the Education Committee:—

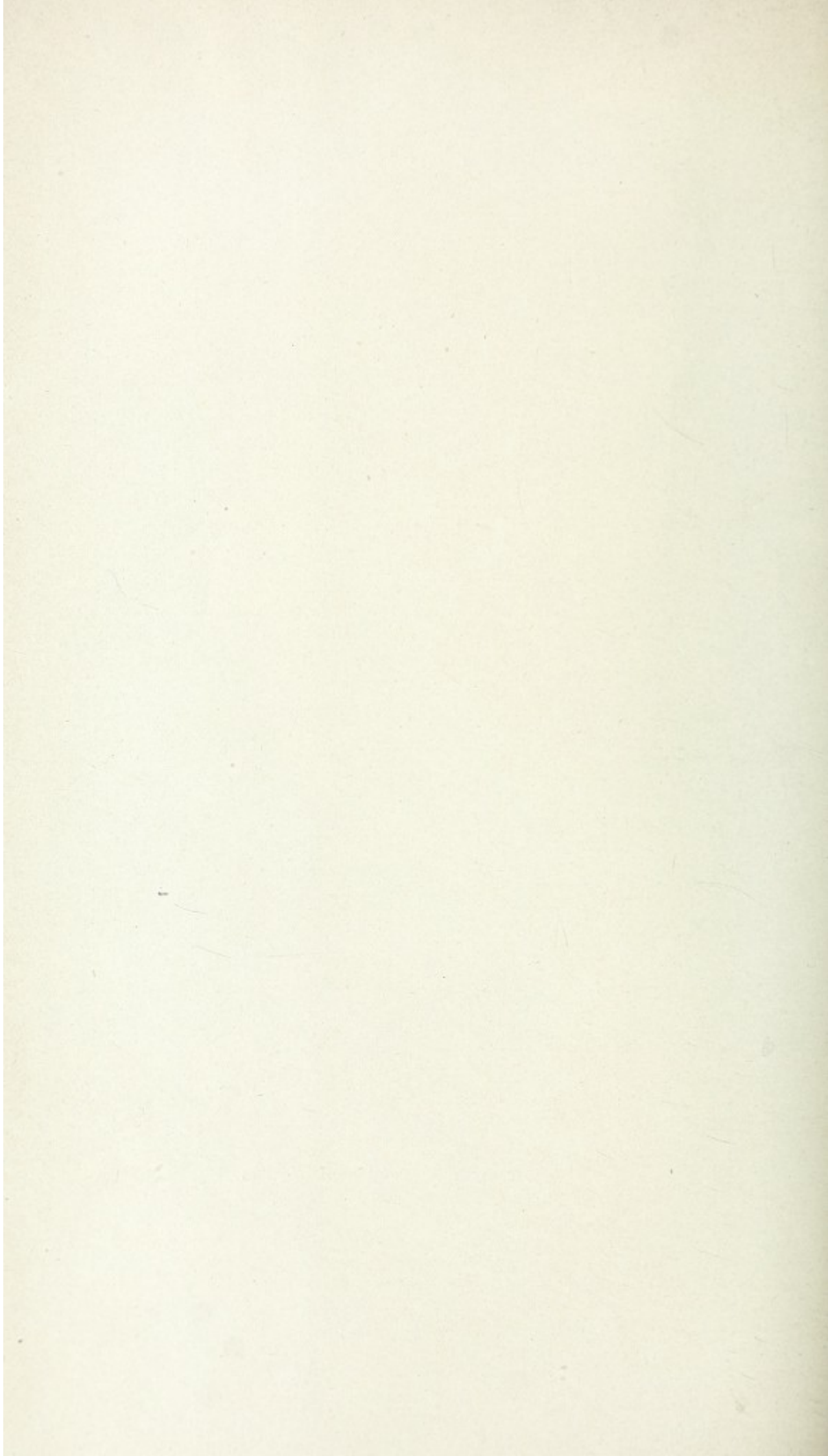
Since the opening of the School Clinic at Handsworth in October, 1913, my time there has been occupied for the most part with the operative treatment of school children suffering from adenoids and unhealthy tonsils. Certain children are referred to me for an opinion as to the necessity for operation or

\* At the time of going to press the number of operations which had been performed was 163.  
(1.5.14)



HANDSWORTH SCHOOL CLINIC.

[Photo. E. J. PARDOE.]



the advisability of other treatment of the throat or upper air passages. Children with ear disease requiring special treatment and certain cases of nasal obstruction to breathing, not due to adenoids, are sent to the Clinic at the Ear and Throat Hospital, where they receive attention.

The children are examined before operation, and the teeth are inspected, so that afterwards the process of healing may not be retarded by a foul state of the mouth. No child is operated upon until the mouth has received adequate dental attention.

Particular instructions are given to the parents or guardians of each child previous to the day of operation, so that the child may be properly prepared. The senior nurse, whose efficient assistance cannot be too highly commended, has undertaken the necessary examination, to ensure that these instructions have been attended to in the case of each child.

The toys and picture books in the waiting room are a useful feature, which might be copied elsewhere, as by such means the attention of the children is absorbed, and a placid state of mind enables them to inhale the anæsthetic quietly in the operating theatre.

The anæsthetic given is ethyl chloride, which has been found well adapted to the requirements, and has been used extensively for this class of work at other institutions.

The large room, containing 10 beds, in which the children are placed after operation, is well suited for the purpose to which it has been converted, and the arrangements in the operating theatre have proved efficient in practice. The nurses have given entire satisfaction in the performance of their duties, and have facilitated greatly thereby the routine procedure.

The children are detained for twenty-four hours, and return to their homes on the day following the operation, with printed instructions for their immediate after-care. In the course of some weeks, when recovery is complete, it is most important that the children should be taught breathing exercises, to aid expansion of the chest, with better oxidation of the blood, and so thereby to promote growth and increased energy.

#### ALMONER WORK.

The appointment of a lady trained in social work gave an opportunity for valuable help in co-ordinating the work of the Medical Department with that of other agencies dealing with the amelioration of child life. The abolition of the post brought about by the change of system in the Dental Clinics has brought this work to a standstill. This is regrettable, for there is abundant scope for co-ordinating work of this kind, as will be seen in the following report by Miss M. W. Averay-Jones.

During the year 1913 forty-four children have been reported to me as being in need of hospital or convalescent treatment. Several of these cases I have visited in the first instance, and have given tickets for admission to Moseley Hall, kindly sent to me by subscribers. The greater number I have referred to the City Aid Society and the Charity Organisation Society, who have been instrumental in procuring convalescent and hospital treatment for thirteen children. In addition to this the Charity

Organisation Society have, with the co-operation of the parents, boarded out in the country for a prolonged period two consumptive boys, who are making good progress towards recovery.

A case I reported to this Society of a child suffering from general debility was found, on investigation, to be one for the National Society for the Prevention of Cruelty to Children, as the condition of the child was found to be due to wilful neglect on the part of the parents. In a similar instance the Society are endeavouring to place an orphan boy suffering from neglect and malnutrition in one of the Middlemore Homes.

The Women's Settlement have been able to provide General Hospital and Eye Hospital notes in two cases, and the Children's Country Holiday Fund gave a delicate girl just leaving school a free holiday in the country. I have been able to advise contributions at school towards this Fund for delicate children attending the Clinics. The Secretary of the Society has very kindly paid special attention to any cases I have reported in this way.

I have also been able to secure admission to the Orthopædic Hospital of an urgent case, through the kindness of the Matron, and to enlist the service of the Almoner of the General Hospital in keeping under observation a boy attending the hospital regularly pending an operation. The Cripples' Union are considering the application of a girl suffering from a tubercular hip-joint and back for admission into the "Woodlands," Northfield, next March.

The City Aid and the Charity Organisation Societies have given valuable help in investigating the circumstances and home conditions of the children reported by the school doctors as being in an unhealthy condition. In two cases it was found that children attending the ordinary elementary school would be able to attend the Open-air School if certified for admission. The children are now attending the Open-air School.

The Health Department have now under observation for sanatorium treatment the case of a boy suffering from secondary phthisis.

Several children have been sent to the Hospital Saturday Fund's Home at Great Barr. This Home is free to subscribers and others selected by the Committee, but in many cases the parents of children who are subscribers are quite ignorant how to set about securing admission for their children. These cases I have been able to visit myself, and to make the necessary arrangements for filling up of forms, etc. In other cases the City Aid Society have visited and made the arrangements.

The charitable societies have in every instance willingly co-operated with the Medical Department, both in securing help for ailing children and in sending in reports on the result of their investigations. Altogether more than 40 children have been benefited by these investigations.

#### " FOLLOWING-UP."

As far as possible an attempt is made to secure that, in addition to the routine medical inspection, each school is visited twice during the year by the Assistant School Medical Officer. Re-visits are also made

by the School Nurses. In this way it is possible to keep under observation the children whose condition requires it, and to find out the extent to which the defects have been ameliorated. In the absence of any organised system of Medical Care Committees these results may be considered satisfactory when the difficulty of obtaining the necessary treatment in many cases is considered, for they show that within six months nearly 43 per cent. have obtained treatment. It must be remembered that many of these defects are those of vision, and that so great is the total number of children requiring examination for spectacles that there are at any given time several hundred children on the waiting list. Other defects, *e.g.*, discharging ears, etc., are those for which an organised system of minor ailment treatment is likely to secure treatment far more readily than is at present the case. Others, again, are children suffering from tuberculous infections of different kinds, and for these much more can be done than is at present attempted in the way of an open-air curriculum. The following figures refer to schools where sufficient time has elapsed since medical inspection to bring them within the scope of the enquiry.

|   |       |
|---|-------|
| Total number of children found to show defects ... ..     | 5615  |
| Number who had received treatment within three months ... | 1180* |
| Number who had received treatment within six months...    | 1234* |
| Number still untreated ... ..                             | 3231  |
| Total percentage of treated cases ... ..                  | 42.7  |
| Still requiring treatment ... ..                          | 57.3  |

A number of Medical Care Committees are now in operation. With the municipal provision of ameliorative treatment the need for a larger development of organised voluntary help is becoming increasingly urgent, for the success of the one is largely dependent upon the activity of the other.

*Birmingham Women's Settlement.*—Miss Matheson has supplied the following report:—

During 1913 the three Committees sitting at the Settlement have dealt with fully seven hundred cases of children needing medical attention. The medical inspection has been systematically followed up in connection with five neighbouring schools, but applications have also been dealt with from a wider area, and there have been a number of cases of young infants and of children over school age which are not included in the tabular statements appended.

Five hundred and sixteen of the children were suffering from affections of the eyes, teeth, or ear and throat, and the difficulty of obtaining treatment for these children has been greatly lessened by the organisation of the School Clinics; we are especially glad of the arrangement that allows the children to remain twenty-four hours in the Clinic after an operation for tonsils and adenoids, as this period of rest in quiet and fresh surroundings gives them a far better chance of recovery than the most careful mother can provide in the more crowded districts of the City. There seems to be a steadily growing appreciation of the importance of dental treatment on the part of the parents, but of course there are cases in which persuasion proves of no avail, and the N.S.P.C.C. are most helpful in stepping into the breach, generally with speedy and effectual results.

\* These figures are mutually independent, and the same school is not enumerated in both cases.

Fifty-eight children have been sent into the country, in some cases for several months. With young children a short holiday has often been most helpful after a visit to the Adenoid Clinic, and several others have been sent away to gain strength before an operation. There have been nine cases of chorea, and these cases always offer great difficulties. It seems as if the best hope for these children would be a special ward attached to one of the country Homes, where they could stay for three months at least, and have modified schooling during convalescence. As matters have progressed so far with regard to medical treatment, perhaps it is not too much to hope that we may soon have facilities for open-air education on the north side of the City. Meanwhile we welcome the signs that an extension of medical care work in connection with the School Clinics seems probable, and if the information accumulated by these Medical Care Committees during the last five years can be of any help to Committees starting similar work we hope that they will not hesitate to ask for it. In view of this movement on the part of the Care Committee to take up medical care work as far as it is connected with the School Clinics, we shall probably modify our medical care work here, so as to fall into line with the rest of the City. In this case we shall keep one Care Committee, under the present management, to deal with medical *relief* work, *i.e.*, non-clinic work for all our schools, and, we hope, for a wider area, and the clinic or non-relief work will go into the branch of the ordinary Care Committees, strengthened by the addition of our medical care workers.

In conclusion, may we express a hope that the Education Committee will soon appoint another almoner to deal with this question of medical care, and to help and advise the Committees that are taking it up. We should like to say that we found the work greatly facilitated when there was an almoner at the Medical Department.

SUMMARY OF CASES DEALT WITH BY THE BIRMINGHAM WOMEN'S  
SETTLEMENT DURING 1913.

1. *Eye Cases.*

|                        | Notified. | Spectacles through |            |          | Treatment only | Waiting and Pending. | Refused or lost sight of. | Mending of Spectacles. | Infirm-ary. |
|------------------------|-----------|--------------------|------------|----------|----------------|----------------------|---------------------------|------------------------|-------------|
|                        |           | Clinic.            | Hospitals. | Parents. |                |                      |                           |                        |             |
| Summer Lane ... ..     | 113       | 48                 | 18         | 5        | 14             | 7                    | 16                        | 5                      | —           |
| Smith Street ... ..    | 36        | 4                  | 2          | 5        | 3              | 18                   | 4                         | —                      | —           |
| Cowper Street ... ..   | 40        | 7                  | —          | 7        | 12             | 10                   | 4                         | —                      | —           |
| Elkington Street ...   | 16        | 8                  | 1          | —        | 5              | 1                    | 1                         | —                      | —           |
| St. Chad's R.C. ... .. | 12        | 6                  | —          | —        | 3              | 2                    | —                         | —                      | 1           |
| TOTALS ... ..          | 217       | 73                 | 21         | 17       | 37             | 38                   | 25                        | 5                      | 1           |

2. *Ear and Throat Cases.*

|                        | Notified.  | Operations. |            | Very mild or Treatment only required. | Pending.  | Refused or lost sight of. | (Convalescent Treatment.) |
|------------------------|------------|-------------|------------|---------------------------------------|-----------|---------------------------|---------------------------|
|                        |            | Clinic.     | Hospitals. |                                       |           |                           |                           |
| Summer Lane ... ..     | 61         | 6           | 14         | 22                                    | 11        | 8                         | (13)                      |
| Smith Street ... ..    | 36         | —           | 13*        | 11                                    | 10        | 2                         | —                         |
| Cowper Street ... ..   | 42         | 2           | 5†         | 14                                    | 20        | 1                         | —                         |
| Elkington Street ...   | 20         | 9           | 1          | 10                                    | —         | —                         | —                         |
| St. Chad's R.C. ... .. | 6          | 3           | —          | 3                                     | —         | —                         | —                         |
| <b>TOTALS</b> ... ..   | <b>165</b> | <b>20</b>   | <b>33</b>  | <b>60</b>                             | <b>41</b> | <b>11</b>                 | <b>(13)</b>               |

\* 7 Through parents' action.

† 5 Through parents' action.

3. *Various Complaints (many still under treatment).*

|                        | Clinic.   | Dental Cases.       |           |                | Dental Totals. | Convalescence. | Chorea.  | Consumption. | Anæmia and Delicacy. |
|------------------------|-----------|---------------------|-----------|----------------|----------------|----------------|----------|--------------|----------------------|
|                        |           | Hospital Treatment. | Pending.  | Lost sight of. |                |                |          |              |                      |
| Summer Lane ... ..     | 34        | 4                   | 6         | 2              | 46             | 29             | 4        | 4            | 28                   |
| Smith Street ... ..    | 14        | 4                   | 22        | 10             | 50             | 12             | 2        | 5            | 9                    |
| Cowper Street ... ..   | 8         | 3                   | 6         | 4              | 21             | 9              | —        | 9            | 4                    |
| Elkington Street ...   | 8         | 5                   | 2         | 1              | 16             | 4              | 2        | 9            | 16                   |
| St. Chad's R.C. ... .. | —         | —                   | —         | —              | —              | 4              | 1        | —            | 6                    |
| <b>TOTALS</b> ... ..   | <b>64</b> | <b>16</b>           | <b>36</b> | <b>17</b>      | <b>133</b>     | <b>58</b>      | <b>9</b> | <b>27</b>    | <b>63</b>            |

*St. Mary's, Bath Street.*—In addition to much general medical help the Committee has secured treatment for the following cases:—Ten of eye defects, seven of adenoids, seven of teeth, six of discharging ears. Twelve children have been sent into the country under the Holiday Fund, and eight children who had left school have been persuaded to obtain work better suited to their physical capacities. The Head Teacher writes:—

There are still many delicate children in attendance who are constantly ailing, who would benefit very much if able to attend an open-air school. Much progress has been made in the direction of cleanliness of body and clothing; handkerchiefs or pieces of rag are more in evidence. The elder girls have been encouraged to keep their hair well brushed and tidy, and prizes of brushes and combs have been awarded. Tablets of soap and boxes of boot polish have been given to those girls and boys attending school regularly clean in person, and with their boots, though poor, nice and bright. A meeting of parents was arranged in the evening of November 26th. A part of the programme was devoted to a medical lecture by Dr. Moffett, Assistant School Medical Officer. There was a good attendance.

The *Bishop Ryder's School Committee* has in the main confined its attention to the care of the teeth. It has a Tooth Brush Club (in the boys' department alone are 79 boys), the members of which undertake to clean their teeth daily. Fifteen dozen tooth brushes and twenty dozen boxes of tooth powder have been distributed. This is a most useful adjunct to the dental treatment.

*Christ Church C.E., Sparkbrook.*—Fifty cases were visited, and only six cases are returned as not altogether satisfactory. Thirty-eight hospital and other notes have been distributed, and, with one exception, all the children requiring glasses have received attention. Where necessary, loans have been made towards the purchase or repair of glasses.

*St. Clement's Care Committee* only undertakes cases after the efforts of the teachers have failed to secure treatment. By visiting the homes of such cases fourteen children have obtained the appropriate treatment and five others have obtained glasses.

*St. David's.*—Seven children have received treatment for the eyes; upon two operations have been performed, and three children have been treated for discharging ears. One child suffering from tuberculosis has been maintained in the country for three months.

Other Medical Care Committees have also been at work, but reports of their work have not come to hand. The above statement shows the great value of the work which can be done without an undue call upon the time of voluntary workers, and is an instance of what may be achieved when a network of Medical Care Committees covers the whole area where such help is necessary.

Mention should also be made of the aid given by the National Union of Teachers Charities Fund to children requiring treatment. (This fund, during the 28 years of its existence, has collected the sum of £20,398.) In the year ending September 30th, 1913, the following help was given:—

|                           |     |     |     |     |     |       |
|---------------------------|-----|-----|-----|-----|-----|-------|
| Eye Hospital Notes        | ... | ... | ... | ... | ... | 800   |
| General Dispensary        | ... | ... | ... | ... | ... | 2,064 |
| Dental Hospital           | ... | ... | ... | ... | ... | 196   |
| Moseley Convalescent Home | ... | ... | ... | ... | ... | 20    |
| Ear and Throat Hospital   | ... | ... | ... | ... | ... | 684   |
| General Hospital          | ... | ... | ... | ... | ... | 402   |
| Orthopædic Hospital       | ... | ... | ... | ... | ... | 96    |
|                           |     |     |     |     |     | <hr/> |
| Total                     | ... | ... | ... | ... | ... | 4,262 |
|                           |     |     |     |     |     | <hr/> |

The Birmingham District Nursing Society have again rendered valuable services. Their sphere of work lies within the limits of the old City boundary, and within this area the district nurses have paid 7,493 visits to 386 school children, of whom 48 have been visited at the instance of the School Medical Officer.

The Floodgate Mission has also dealt with an exceedingly large number of children. A weekly list of these is supplied by the Medical Officers of the Mission, who are thus in close touch with the School Medical Department, and as a result of this co-operation many children receive special examination with a view to their admission to the Open-air School, etc. During the year ending 28th February, 1914, 2,758 children were entered on the register, and as the average attendances are four per head the total number of attendances may be put

at 11,032. In addition, 910 special casualties and minor ailments were treated, and 160 operations for the removal of tonsils and adenoids, or other operations requiring a general anæsthetic, were performed.

The Children's Country Holiday Society sent into the country for various periods 1,759 children, either with contributions from the parents (averaging 4s. 6d. per child), or *gratis* through the generous help of the "Daily Mail" Fund or other sources.

The People's Kindergartens at Greet and at the Women's Settlement, Summer Lane, supply help of a different character. At each of these centres there are 30 children, who are educated on Froebel-Montessori lines. These children are inspected annually by an Assistant School Medical Officer, and a schedule is filled in, which accompanies the children on their admission to an Infant Department. This inspection thus helps to link up the work with that of the Medical Department.

Work of a most important character for the children of pre-school age is also being done by the organised system of the Health Department, which aims at the reduction of the infant mortality and by voluntary societies. Thus the work of the Infant Health Society and School of Mothercraft in St. Bartholomew's Ward, which dealt with 560 infants during the year (1,712 infants during the past six years), in addition to the immediate benefit to the children concerned, has resulted in the accumulation of data which will be very valuable when these begin to attend school, and will be available for use during school age.

#### TUBERCULOSIS.

The notification of tuberculous infection of all kinds has now been in operation for two years. In the following table the results of this notification for the two years is given, allocated to the various wards in which the children live. These wards are arranged in a descending order according to the number which have been notified from each ward. To those who know the social conditions which exist in the various wards, the order which is thus obtained is a striking proof of the association of tuberculosis with unhygienic conditions of life. As the infant mortality rate serves as a delicate index of the sanitary status of a population, the rates for each ward are also given. Dr. Robertson, Medical Officer of Health, reports that at the end of the year the total number of school children on the tuberculosis register was 1,104. Of these, 472 live in houses having rentals of less than 5s. 6d. per week (*i.e.*, 42.75 per cent.). There are in addition 165 children on the register who are under school age, and of these 85, or 51.5 per cent., are living in houses under 5s. 6d. per week. The number of children notified in 1913 by the Assistant School Medical Officers to be suffering from tuberculosis of all forms was 188.

CHILDREN OF SCHOOL AGE SUFFERING FROM ALL FORMS OF TUBERCULOSIS NOTIFIED DURING 1912 AND 1913.

| WARD.                            | Persons<br>per acre. | Infant<br>Mortality. | 1912. | 1913. | Total. |
|----------------------------------|----------------------|----------------------|-------|-------|--------|
| Duddeston and Nechells ... ..    | 76.5                 | 180                  | 48    | 72    | 120    |
| St. Martin's and Deritend ... .. | 96.0                 | 136                  | 34    | 80    | 114    |
| St. Bartholomew's ... ..         | 71.1                 | 134                  | 40    | 59    | 99     |
| All Saints' ... ..               | 80.3                 | 98                   | 27    | 69    | 96     |
| St. Mary's ... ..                | 90.5                 | 194                  | 21    | 67    | 88     |
| Balsall Heath ... ..             | 85.7                 | 81                   | 26    | 57    | 83     |
| Carried forward ... ..           |                      |                      | 196   | 404   | 600    |

| WARD.                    |     |     |     | Persons   | Infant     | 1912.      | 1913.        | Total.       |
|--------------------------|-----|-----|-----|-----------|------------|------------|--------------|--------------|
|                          |     |     |     | per acre. | Mortality. |            |              |              |
| Brought forward .. .. .  |     |     |     |           |            | 196        | 404          | 600          |
| Ladywood                 | ... | ... | ... | 97.2      | 123        | 29         | 51           | 80           |
| Sparkbrook               | ... | ... | ... | 53.0      | 90         | 22         | 51           | 73           |
| St. Paul's               | ... | ... | ... | 78.5      | 134        | 27         | 46           | 73           |
| Saltley                  | ... | ... | ... | 21.3      | 109        | 26         | 42           | 68           |
| Rotton Park              | ... | ... | ... | 56.9      | 112        | 24         | 38           | 62           |
| Small Heath              | ... | ... | ... | 42.1      | 85         | 21         | 41           | 62           |
| Washwood Heath           | ... | ... | ... | 23.9      | 97         | 20         | 42           | 62           |
| Market Hall              | ... | ... | ... | 51.1      | 138        | 14         | 44           | 58           |
| Aston                    | ... | ... | ... | 67.4      | 105        | 16         | 40           | 56           |
| Lozells                  | ... | ... | ... | 96.0      | 102        | 12         | 32           | 44           |
| Acock's Green            | ... | ... | ... | 11.3      | 79         | 12         | 29           | 41           |
| Edgbaston                | ... | ... | ... | 12.6      | 87         | 7          | 35           | 42           |
| Sparkhill                | ... | ... | ... | 8.1       | 61         | 19         | 19           | 38           |
| Selly Oak                | ... | ... | ... | 19.8      | 57         | 8          | 22           | 30           |
| Soho                     | ... | ... | ... | 36.5      | 76         | 11         | 16           | 27           |
| Yardley                  | ... | ... | ... | 5.5       | 109        | 8          | 17           | 25           |
| King's Norton            | ... | ... | ... | 5.5       | 80         | 7          | 16           | 23           |
| Handsworth               | ... | ... | ... | 18.2      | 78         | 7          | 14           | 21           |
| Moseley and King's Heath | ... | ... | ... | 13.6      | 74         | 5          | 12           | 17           |
| Erdington South          | ... | ... | ... | 8.0       | 97         | 4          | 11           | 15           |
| Erdington North          | ... | ... | ... | 5.7       | 62         | 6          | 9            | 15           |
| Sandwell                 | ... | ... | ... | 11.8      | 87         | 4          | 8            | 12           |
| Harborne                 | ... | ... | ... | 6.3       | 87         | 1          | 5            | 6            |
| Northfield               | ... | ... | ... | 1.1       | 60         | —          | 3            | 3            |
| Not located              | ... | ... | ... | —         | —          | 3          | 9            | 12           |
| <b>TOTAL</b> .. .. .     |     |     |     |           |            | <b>509</b> | <b>1,056</b> | <b>1,565</b> |

These children at present are in a most unfortunate position, for they hover between the Scylla of ignorance and the Charybdis of physical incapacity. If excluded from the benefits of education they are unable to earn a living on reaching school age, while if they continue to attend school under the existing conditions of ventilation and cleanliness they are all too little likely to combat the disease, and either become a burden to the community or fall victims to the infection in the succeeding age period. Too great insistence cannot be placed upon the fact that in the campaign against tuberculosis the main battle must be fought during school life, and in the schools. It is through the provision of better air conditions and cleanliness in the schools, the inculcation and practice of personal cleanliness by the provision of school baths, the prevention of dental decay by early treatment of the teeth; the provision of meals for debilitated children, and the continued medical supervision of the delicate and anæmic, that the incidence of tuberculosis both during school age and in after years can be diminished. Omission of these provisions is likely to earn "the far-off interest of tears," in poverty, sickness, destitution, and death, and that most frequently just at the time when physical efficiency is most needed, when there are children dependent upon parents in early adult life who form so large a number of the victims. Poverty, with all its attendant evils and contact with the infected parents, leads to infection of the children, and so the vicious circle is complete. When viewed from this point it is plain that any present outlay will be abundantly repaid by a lessened burden on the community in future years.

We are faced with the fact that some 1,500 children are officially recognised as suffering from tuberculosis, for the great majority of whom nothing is being done in the schools. What is wanted is a carefully considered and co-ordinated scheme, which shall embrace the

whole area, and shall make provision for the various degrees and types of tuberculous infection. The existing provisions may be summarised as follows:—

1. *Uffculme Open-air School*.—This provides accommodation for 120 day scholars suffering from various debilitating conditions, a number of whom are probably infected with tuberculosis. Cases of open tuberculosis are not admitted, and this school provides for a comparatively small number of children. The need for a second Open-air School on the other side of the City has been dealt with in previous reports, and the suitability of Ward End School, both for its location and convenient proximity to the terminus of a tramway which would tap some of the worst areas of the City, has also been pointed out.

The Tuberculosis Officer of the General Dispensary writes of—  
the inadequacy of the provision for open-air education throughout the City. At present it is impossible for a large number of our tuberculous children to have open-air education, simply because their parents must live, on account of their work, in positions whence Uffculme is practically inaccessible, and, so far as I can gather, there is no suitable provision for these children elsewhere.

In this connection the following table gives the number of children suffering from tuberculosis upon the books of the Dispensary:—

| Sex.           | 0-5. | 6-15. | Total. |
|----------------|------|-------|--------|
| Males ... ..   | 38   | 182   | 220    |
| Females ... .. | 26   | 134   | 160    |
| TOTAL ... ..   | 64   | 316   | 380    |

2. *Yardley*.—The Sanatorium accommodation for children, which will be shortly afforded at Yardley when the scheme is complete, will be 54 beds. A number of these beds will be set aside as observation beds, into which children will be admitted for a short period, during which they can be under careful supervision and examination. They can then be dealt with according to their needs. Those showing acute pulmonary tuberculosis will be sent to occupy the available beds; others will necessarily require some other provision, either of the nature of open-air school life or education in open-air classrooms, or will be suitable recipients of meals under the Provision of Meals Act (see page 38).

It is evident that to secure satisfactory results there must be the closest co-operation between the School Medical Department and the Tuberculosis Officers, who will be in a position to determine the best line to be followed for each individual child who comes under their notice, and it is equally evident that the provision which exists at present for the continued education of these children is exceedingly meagre.

3. *Open-air Classroom*.—But it must be remembered that the cases so treated will form only a small proportion of the total number of children whose condition urgently calls for an open-air curriculum.

The question of the conversion of a classroom in two schools into an open-air classroom by the enlargement of the window and insertion of a movable window frame, has been under prolonged discussion, and a classroom in one school will shortly be treated in this way. A number of schools (as has been shown in previous reports) are eminently suitable for the provision of roof classrooms at a small outlay, *cp.* Cotteridge and College Road Council Schools. In this connection it may be mentioned that for some years past classes have been taken on the roof of St. Thomas' C.E. School (see illustration).

The "out-of-door" class, for delicate children, which was begun in October, 1912 (see Annual Report, 1912, page 47), at Bloomsbury School, Infants' Department, was continued throughout the winter, and until nearly the end of the year.

The physical condition of the children markedly improved, and 28 per cent. showed a gain in weight of from 5 to 8 pounds. The average gain in weight of all the children was over 3 pounds.

The 24 children thus educated in the summer showed the following conditions:—

|                    |     |     |     |     |   |
|--------------------|-----|-----|-----|-----|---|
| Tuberculosis       | ... | ... | ... | ... | 6 |
| Chronic Bronchitis | ... | ... | ... | ... | 7 |
| Heart Disease      | ... | ... | ... | ... | 2 |
| Poor Nutrition     | ... | ... | ... | ... | 3 |
| Anæmia             | ... | ... | ... | ... | 2 |
| Deformities        | ... | ... | ... | ... | 3 |
| Chorea             | ... | ... | ... | ... | 1 |

Though carried out under very adverse conditions, the class justified its existence, and its cessation has intensified the urgent need of properly organised open-air education for this class of child, who could have obtained no education otherwise, but must have been excluded from school.

The following regulation has recently been adopted by the Elementary Education Sub-Committee for the guidance of teachers in regard to the attendance at school of children suffering from tuberculosis:—

Children of school age suffering from tuberculosis may, in the great majority of cases, quite properly be allowed to continue at school. There will be a few, however, who will be infectious. It is, therefore, desirable that the Head Teacher should submit every new case of tuberculosis to the School Doctor at his earliest visit, and the doctor will then determine whether the child should attend school or not. For children who are suffering from tuberculosis of the glands, of the bones, and of other parts of the body, it is necessary that special attention should be paid to the ventilation. Where there is a weighing machine in the school such children should be weighed periodically—once in six weeks—and the weight should be noted on the medical schedule.

4. *Provision of Meals.*—By a resolution passed by the Provision of Meals Sub-Committee, meals are now given to children notified to be suffering from tuberculosis, even though they are excluded from school, on the recommendation of the Medical Officer of Health or myself. In this way, up to the 31st December, there were recommended:—

|                                  | Cases.    | Children. |
|----------------------------------|-----------|-----------|
| Medical Officer of Health ... .. | 3         | 9         |
| School Medical Officer ... ..    | 35        | 60        |
| <b>TOTAL</b> ... ..              | <b>38</b> | <b>69</b> |

5. *Bone and Joint Tuberculosis.*—There are now 64 beds available at "The Woodlands," maintained by the Birmingham and District Cripples' Union. For the occupants a teacher has been supplied by the Education Committee. A certain number of children suffering from bone or joint disease find their way into the wards of the voluntary Hospitals of the City, but the number of beds available from this source is limited.

#### CHOREA.

One hundred and forty-nine children were reported by medical practitioners as unable to attend school on account of chorea, and 85 children were noted in the course of medical inspection. This figure does not represent the total number of cases, for it does not include the large number of cases under treatment at the Hospitals and Dispensaries. In view of the tendency to recurrence and to cause serious disease of the heart, there is no other class of child which requires greater care and special attention. The excitement and stress of attendance at an ordinary school has a peculiarly adverse influence on the progress of this malady, and, as was pointed out in the 1912 Report, some Convalescent Home for these cases is one of the most pressing child needs of the time (see page 22). The children admitted to the Open-air School do very well, but even there the journeys undo much of the good which would otherwise accrue.

#### HEART AFFECTIONS.

The heavy incidence of acquired heart affections (1.5 per cent.) deserves careful attention, for it represents a great loss of efficiency and invalidism in after-life. Rheumatic conditions and chorea account for a great proportion of these cases, and any means which can be devised to combat these diseases will result in a great ultimate saving to the community.

#### INFECTIOUS DISEASE.

*Infantile Paralysis and Cerebro-spinal Meningitis.*—Eighteen cases of anterior poliomyelitis (infantile paralysis) were notified in 1913, and an equal number in 1912. This low incidence is highly satisfactory, in view of the epidemic character which this infectious disease assumed during 1911. Six cases of cerebro-spinal meningitis were reported.

The loss of attendance due to infectious disease has been heavy.

|                       | Patients.     | Contacts.     | Total.        | 1912. |
|-----------------------|---------------|---------------|---------------|-------|
| Diphtheria ... ..     | 495           | 1,102         | 1,597         | 1,314 |
| Scarlet Fever ... ..  | 4,045         | 7,273         | 11,318        | 8,543 |
| Whooping Cough ... .. | 1,646         | 912           | 2,558         | —     |
| Chicken Pox ... ..    | 1,882         | 1,017         | 2,899         | —     |
| Measles ... ..        | 2,975         | 746           | 3,721         | 9,431 |
| Mumps ... ..          | 3,928         | 3,049         | 6,977         | —     |
| <b>TOTAL</b> ... ..   | <b>14,971</b> | <b>14,099</b> | <b>29,070</b> |       |

It will be seen from the above that the chief increase has been due to the unusual prevalence of scarlet fever, generally of a mild type, whereas the somewhat localised epidemic of measles, which proved so virulent at the end of 1912, did not continue to any marked extent into the new year. This lessened incidence is reflected in the lessened mortality from measles, only 27 deaths of children of school age having been registered.

In order to secure uniformity of action throughout the schools the following circular was issued to teachers in March, 1913:—

#### *Measles.*

The recent epidemic of measles has brought to light the fact there exists in the minds of some teachers some doubt as to the method of procedure in time of epidemic.

For the information of such teachers, and for the guidance of teachers in the areas recently added to the City, it may be stated that in March, 1909, a circular (No. 441) was issued, setting forth the Education Committee's revised regulations in regard to this matter. The regulations then laid down still hold good.

Please, therefore, note that it is not deemed a reasonable excuse for a child who has had measles to be kept from school when other children in the same family are suffering from that disease. Children who have had measles are now required to attend school, and those who have not had measles are to be kept away from school if a case of the disease exists in the family or in the house in which they are living.

The Education Committee have also decided to attempt to prevent the spread of measles in the *Infants' Departments* by a method of warning parents, so that the parents warned may be on the outlook for the earliest symptoms of the disease.

The following instructions are issued to teachers of *Infants' Departments* for their guidance in this attempt to prevent the spread of measles:—

1. Whenever measles is said to be the cause of absence of a pupil in your department, please notify at once to the Medical Officer of Health, who will have enquiries made, and report to you the date on which the rash commenced.

2. Having thus obtained verification, please distribute the circulars (forwarded herewith) to each scholar who has not already suffered from measles *in the class* attended by the affected child. Such circulars will be useless if distributed after *twelve days* from the appearance of the rash in the first case affected. The best time to distribute them will probably be from the fifth to the tenth day after the commencement of the rash in the first case.

3. It is probable that secondary cases may occur in from *nine to sixteen days* after the first one. Should such occur it will not be necessary to re-issue the warning to parents after each such secondary cases. When, however, a new infection takes place, unconnected with the first, the warning notices should be again issued.

4. Please send names and addresses to the Medical Officer of Health of any children kept away from school as a result of issuing the warning notices, and he will have each case investigated, and report the result to you.

In order to carry out this scheme effectively and promptly it is necessary that some record shall be easily available, whereby the names of children protected by a previous attack can be at once ascertained. If an enquiry of this kind is deferred until an epidemic is in progress, difficulty will be experienced in a number of cases in arriving at the truth—whether a child is, or is not, protected. The most favourable opportunity for making this enquiry is, of course, at the time of admission of the child to the school, and, in order to avoid a multiplication of lists and forms, it is suggested that a column should be ruled off on the "address" page of the attendance register for this purpose. An attack subsequent to admission should be added as occasion arises.

Every care should be taken to see that this column is kept up-to-date, otherwise, in time of epidemic, the whole scheme breaks down. It will be necessary to revise the column very carefully after an epidemic has occurred.

In future issues of the attendance register a special column will be provided for this purpose. In the registers in use in the old City area such a column is already provided.

The circular for distribution to parents, to which reference is made above, is as follows:—

.....School,  
.....19 ..

Sir, or Madam,

A case of measles has occurred in the class at the above school in which your child is a scholar. I am desired, on the suggestion of the Medical Officer of Health, to ask you to *continue to send your child to school* unless any of the early signs of measles are noticed, such as sneezing, running at the eyes and nose, a general appearance of having caught a cold, and probably a feeling of being out of sorts.

If you notice any of these signs within the next ten days it will be well to keep your child away from school and *in a warm room (preferably in bed) for three days*, by which time you will be able to decide whether measles is going to develop or not.

It is most important in preventing the spread of measles that the first signs of the disease should be noted, and the child kept at home.

The receipt of this notification will not entitle a parent to keep his child away from school without definite reason.

Yours faithfully,

.....  
*Head Teacher.*

It is hoped that by these means the parents, being forewarned as to the likelihood of an attack, may take such steps as will secure timely treatment, and thus lessen the mortality from this disease.

... DIPHTHERIA AND SCARLATINAL INFECTION.

A highly important research into the relationship between scarlet fever and the diphtheria bacillus was carried out during the early part

of the year in two of the Council Schools by Dr. Shadick Higgins, late Assistant Medical Officer of Health, now Medical Officer of Health of St. Pancras.\* One of these schools had been entirely free from diphtheria for at least eighteen months, and during that time had produced only a few cases of scarlet fever. The other school had produced only three cases of diphtheria during the past two years, but had been afflicted with a considerable outbreak of scarlet fever during the autumn and winter, cases continuing to occur in abundance during the time the swabs were being taken. Only children were selected who gave a history of never having had scarlet fever or diphtheria. In all 99 children were swabbed—50 boys and 49 girls—half being taken from each of the schools. In 18 cases a "positive" bacillus was isolated and tested. Seven of these proved to be Loeffler's bacillus, *i.e.*, the true infective agent of diphtheria. Thus amongst these school children 7 per cent. showed an actual infection with true *bacillus diphtheriæ*, though only in one case was the germ fully virulent.

The fact that a distribution of the causative bacillus of diphtheria occurs in schools which are almost, if not entirely, free from clinical diphtheria is of the utmost importance. Dr. Higgins further adduces evidence to show that cases, in which the diagnosis has been revised after admission to the Fever Hospital as "not scarlet fever," but which, however, have been associated with "return cases" after their discharge, frequently show infection with typical *bacillus diphtheriæ*. "This is significant as admitting of the explanation that in contracting these bacilli, which are so prevalent in the wards of a Scarlet Fever Hospital, the patients thereby become able to spread scarlet fever, although they themselves have not shown any signs of the disease—it is as if the diphtheria germ brought with it the scarlatinal virus."

#### DEATHS OF CHILDREN.

The following table gives the causes of deaths of children between the age of 5 and 15 years for the year, compared with those of 1912:—

| Infectious Diseases:—<br>(156, or 33·2 %)        | 1913.      |      | 1912.      |      |
|--|------------|------|------------|------|
|  |            | %    |            | %    |
| Measles ... ..                                   | 27         | 5·7  | 57         | —    |
| Scarlet Fever ... ..                             | 43         | 9·1  | 41         | —    |
| Whooping Cough ... ..                            | 9          | 1·9  | 6          | —    |
| Diphtheria ... ..                                | 76         | 16·2 | 39         | —    |
| Typhoid ... ..                                   | 1          | ·2   | 2          | —    |
| Accidents:—<br>(40, or 8·5 %)                    |            |      |            |      |
| Burns ... ..                                     | 14         | 3·   | 17         | —    |
| Drowning ... ..                                  | 9          | 1·9  | 9          | —    |
| Run over ... ..                                  | 12         | 2·5  | 9          | —    |
| Other Accidents ... ..                           | 5          | 1·0  | 13         | —    |
| Heart and Pericardium ... ..                     | 32         | 6·7  | 66         | 12·6 |
| Pneumonia ... ..                                 | 35         | 7·4  | 49         | 9·4  |
| Tuberculosis (excluding Meningitis and Phthisis) | 33         | 7·0  | 19         | 3·6  |
| Brain and Meninges ... ..                        | 51         | 10·8 | 41         | 7·8  |
| Phthisis ... ..                                  | 17         | 3·6  | 33         | 6·3  |
| Lungs (other than Phthisis) ... ..               | 9          | 1·9  | 13         | 2·4  |
| Rheumatism ... ..                                | 14         | 3·   | 20         | 3·8  |
| Abdomen and Pelvis ... ..                        | 32         | 6·7  | 32         | 6·1  |
| Septic conditions ... ..                         | 13         | 2·7  | 20         | 3·8  |
| Nephritis ... ..                                 | 8          | 1·6  | 35         | 6·7  |
| Epilepsy, Paralysis and Convulsions ... ..       | 14         | 3·   |            |      |
| Other rare conditions ... ..                     | 15         | 3·2  |            |      |
| <b>TOTAL</b> ... ..                              | <b>469</b> |      | <b>521</b> |      |

\* Proc. Roy. Soc. Med. (Epidem. Sect.), Vol. 6, pp. 204.

It will be noted that one-third of the total number of deaths have been due to infectious disease, and that the heaviest mortality has been caused by diphtheria. This mortality is in marked contrast to that caused by phthisis, which has been recorded as the cause of death in only 3.5 per cent. of the total number of deaths (see page 25). The toll of the streets is also a heavy one, but is exceeded by that of fire, these two causes forming 30 and 35 per cent. respectively of the accidental deaths.

#### VERMINOUS CHILDREN.

Owing to increased work in other directions the School Nurses have been unable to carry out the same number of examinations as in the previous year, but as far as possible attention has been paid to those schools with highest degree of uncleanness. This fact probably accounts for the larger percentage of children found to be grossly verminous. The evidence of the teaching staff, however, associates this increase with the lessened number of visits by the School Nurses.

|             | No. of Examinations. | Nits.  |          | Vermin. |         | Clean. |          |
|-------------|----------------------|--------|----------|---------|---------|--------|----------|
|             |                      |        |          |         |         |        |          |
| 1909 ... .. | 11,392               | 5,434  | (47.7 %) | 319     | (2.8 %) | 5,639  | (49.5 %) |
| 1910 ... .. | 30,978               | —      | —        |         | 55.3 %  |        | (44.7 %) |
| 1911 ... .. | 63,744               | 25,070 | (39.3 %) | 1,709   | (2.6 %) | 36,965 | (59.9 %) |
| 1912 ... .. | 142,025              | 45,057 | (31.7 %) | 6,970   | (4.9 %) | 89,998 | (63.4 %) |
| 1913 ... .. | 114,846              | 40,218 | (35 %)   | 8,950   | (7 %)   | 65,678 | (58 %)   |

|  |                             |
|--|-----------------------------|
| Number of Verminous Children reported in writing from schools to Public Health Department (per school teachers, school nurses, and attendance officers) ... .. | 5,151                       |
| Number reported verbally, as verminous suspects, by school teachers to health visitors when visiting schools ... ..  | 11,158*                     |
| (Of these 11,158 suspects, 3,384 were found verminous on examination.)   | (approximately)             |
| First Warning Notices served ... ..  | 1,140                       |
| Children cleansed at Cleansing Station ... ..  | 620                         |
| Prosecutions (Children Act, Section 122) ... ..  | 43                          |
|  | (in respect of 81 children) |

The results of this campaign cannot be said to betoken a high standard of cleanliness, for the difference between the second and fourth columns is one of degree only. It is an unpalatable but undeniable fact that a considerable number of the community are wholly indifferent to the claims of personal cleanliness of body and clothing. The condition of some of those who attend the School Clinics with their children makes their presence most unpleasant to other persons. The time has arrived when a higher standard of cleanliness of the clothes and person may reasonably be demanded by the community at large.

The question to a large extent resolves itself into one of education. The almost universal adoption of the shower bath in the Public Elementary Schools of the Continent is without doubt the main cause of the much higher standard which can be observed in those countries, and little real change from the present indifference can be expected until the bath becomes an integral portion of the school curriculum. Much

\* Cases reported verbally may also have been previously reported in writing; therefore the 11,158 cases may include some of the 5,151 cases.

of the ill-health and general debility which is to be found amongst the children is directly due to this indifference to dirt. Complaints are frequently received from parents that their children have become infected as a result of their association in school with verminous children. A few years of stringent action in the schools, both by action under the Children Act and by a refusal to allow children to attend in a verminous condition, will do much to improve the present state of things.

#### RINGWORM.

During the year 2,131 children suffering with ringworm were examined by different members of the medical staff. The loss of educational efficiency and financial grant which is occasioned by this parasitic infection is equalled by no other disease. The average length of absence from school of 148 unfinished cases taken on a given day in December was 5.99 months, and some of the cases will still remain uncured for months, either on account of their extensive character or because the means or the wish for cure are wanting. If six months' average absence for each infected child is allowed it is found that the loss of education amounts to the enormous figure of more than 12,000 months. And these figures relate to a single year only! One Head Master writes under date 21st November:—

The method of dealing with ringworm appears to me very unsatisfactory. The enclosed (exclusion) form is for a typical case. This boy has been absent from school for six months, and, apart from periodic examination, no steps are taken to see that remedial measures are being adopted. . . . The majority of parents think ringworm a very trivial thing, and in many cases are quite delighted at being able to keep the children at home. . . . We have already lost since midsummer (holidays) 638 attendances, and every one of the cases was absent some considerable time before the holidays.

That many parents would welcome additional facilities for treatment and cure is evidenced by the fact that 9,280 attendances for inspection and advice were registered at the different Clinics. The arrangement made at the beginning of the present year (1914) for the treatment of a limited number of cases by X-rays at the Infirmary, Dudley Road, will be a great boon to many, and will, to a large extent, repay the cost by the saving of attendance. It is estimated that 300 children will be treated in this way per annum.\*

#### ABSENCE FROM SCHOOL ON MEDICAL GROUNDS.

Speaking generally, the average attendance of children at school may be put at 90 per cent. of the total number on the registers. This loss of educational efficiency is a large one, and it becomes an important problem to determine whether any of it is preventible. An attempt has therefore been made to determine the amount of school attendance lost from causes of a medical character or causes definitely associated with the maintenance of an ordinary standard of school hygiene. To effect this an analysis of the registers of certain schools in various parts of the City has been made over a given period. In School "A" (Mixed Department) during a period of fourteen weeks, out of a total loss of 11,160 attendances, 5,970 (or 53.5 per cent.) were ascertained to be due to "doctor's orders." In School "B" (Boys' Department), out of 14,022 lost attendances in a similar period, 7,056 (or 50.3 per

\* At the time of going to press 52 children had received X-ray treatment; of this number 27 had returned to school cured. The work actually commenced on 10.2.14, and is carried out on two mornings each week. (1.5.14.)

cent.) were due to the same cause. In School " C " (Mixed Department) 196 children were absent on medical grounds 8,759 times out of a total number of 14,410 absences between September 1st and December 22nd, *i.e.*, a percentage of 60·7.

It should be noted that the absences which have been included in this enumeration are those the cause of which have been definitely ascertained from medical certificates, and that if the short absences are added, due to trivial ailments for which no medical certificate is obtained, the proportion will be still higher. To obtain a measure of this total loss a careful record for four weeks was kept in School " D " (Mixed Department, accommodation 700), with the following results:—

| Total absences<br>all causes. | Illness due<br>to infectious<br>disease. | Illness (alleged)<br>other than<br>infectious. | Total Cases<br>of illness. | Absences due to<br>causes other<br>than sickness. |
|-------------------------------|--|--|----------------------------|---|
| 3,270                         | 685                                      | 1,768  | 2,453                      | 817   |
| Percentage ...                | 21 %                                     | 54 %   | 75 %                       | 25 %  |

In order to ascertain the loss due to different forms of disease an analysis of the different causes of absences on medical grounds in an infants' department (School " E," average attendance 440) has been made for the half-year ending January 31st, 1914. During this period the total loss of attendance from all causes was 19,076.

|                               |               |         |
|-------------------------------|---------------|---------|
| Infectious Disease ... ..     | 6,485         | 48·62 % |
| Lung Affections ... ..        | 763           | 5·72 %  |
| Throat and Ear ... ..         | 349           | 2·61 %  |
| Eyes ... ..                   | 344           | 2·58 %  |
| Skin Affections ... ..        | 2,953         | 22·01 % |
| Debility ... ..               | 1,205         | 9· %    |
| Stomach and Intestines ... .. | 219           | 1·52 %  |
| " Fits " ... ..               | 106           | ·79 %   |
| Various ... ..                | 920           | 6·89 %  |
| <b>TOTAL ... ..</b>           | <b>13,344</b> |         |

Thus the loss of attendance due to medical causes was 70 per cent. of the total loss from all causes.

It is thus clear that at least 60 per cent. of all absences from school are on medical grounds, and two questions arise directly from this fact:

(1) How far these " medical grounds " are reasonable causes of absence, and (2) whether the inception of a more organised system of securing inspection and treatment will lessen the actual loss of attendance.

(1) Very large numbers of children are annually excluded by the Medical Department for ringworm, tuberculosis, infectious and other diseases. The fact that the officers of the School Medical Department are thoroughly conversant with the conditions of school attendances, and of the hygienic condition of the schools is *prima facie* evidence of the necessity for exclusion. This, however, cannot be said to be true of all children absent on alleged medical grounds. During the year 5,492 medical certificates were forwarded to the Medical Department in accordance with the agreement with the British Medical Association, outlined in the Report for 1911, signed by medical practitioners, as opposed to 1,198 received during 1912, the first year of the scheme. Satisfactory as this increase is as evidence of the increasing co-operation of the medical profession with the School Medical Service, the whole question of absence on medical certificates is at present unsatisfactory, and is fraught with considerable difficulties. This system is a voluntary one, and has been accepted by a certain number only of the members of the medical profession in the City. It is undeniable that many other certificates—sometimes for

prolonged periods—are obtained without consideration of the facts of the case, often by the misrepresentation or suppression of facts on the part of the parents. In order to gauge the reasonableness of these excuses for non-attendance further enquiry is necessary. At present, however, there is no means whereby this can be done, for the officers of the Attendance Department have not the necessary medical knowledge, and must accept the excuse at its face value. Every absence which is reported to be due to infectious disease is visited both by the School Attendance Officer and by the Health Visitor, whose training enables her to supply information as to the real character of the cause of absence. There are also visitations of tuberculous children, of verminous children, or of children attending the Open-air School, and visits for enquiries into the nature of the need for the provision of meals or visits of explanation of the need for operative treatment of adenoids, all of which demand the services of specially trained workers. Sooner or later the question must arise whether this duplication of effort can be avoided, and an increased efficiency be effected by merging all these duties, together with that of visiting absentees on medical grounds, into a single service, especially in view of the fact that the cost of the Compulsion Department is greater than the combined cost of medical inspection, and of the Health Visitors under the Health Department. In this connection it may be remarked that at least 75 per cent. of the children will now attend school with regularity, provided school places are found for them, and that there are also some 5 per cent. of the child population whose physical or mental condition (idiots, imbeciles, totally paralysed children, etc.) renders them unable to attend any school. Thus the bulk of the work of enforcing compulsory attendance is directed towards 20 per cent. only of the children of school age. Such a system of unification would moreover come under the definition " ancillary to medical inspection," and would therefore be capable of earning a Government Grant up to half the cost of administration. The saving which would thus be effected would go far to supply all the developments in the direction of treatment which are likely to arise.

Some doubt has been expressed lest the provision of Inspection and Treatment Clinics might produce an adverse influence on the average attendance, especially in schools where the social condition of the children demanded a considerable amount of medical attention. From enquiries addressed to a large number of schools it has, however, been found that the aggregate loss of school attendance for the purposes of attending the Clinic does not amount to 5 per cent. It is therefore negligible.

There are, in addition to the above, a large number of children whose absence from school or irregularity of attendance is said to be due to recurrent attacks of headache, sickness, biliousness, anæmia, or complaints of a similar character, for which a medical certificate cannot be expected to be always forthcoming. In order to determine if these excuses for non-attendance are *bonâ fide*, and that the child shall receive proper attention, the following resolution was passed by the Attendance, Finance and General Purposes Sub-Committee in October:—

*Resolved—*

That in cases of systematic irregularity, in which it is alleged that the irregularity is caused by recurring headache, biliousness, etc., the Chief Superintendent be requested to refer

such cases to the School Medical Officer for examination, unless the children be under treatment by a medical practitioner, and the Medical Officer be requested to report as to whether regularity of attendance may or may not be expected.

The work which is hereby entailed is likely to prove considerable, but will be of great service both in securing a better attendance and in tracing and possibly removing the cause of the trouble.

#### PROVISION OF MEALS.

No changes in the system of administration of the provision of meals were introduced during the year.

The number of Centres where food has been given during 1913 was 80. The number of children on the list of Necessitous Children and the Daily Averages of Breakfasts supplied was:—

|               |                       |     |     |     | No. on<br>List. | Daily<br>Average. |
|---------------|-----------------------|-----|-----|-----|-----------------|-------------------|
| 5 weeks ended | 7th February, 1913    | ... | ... | ... | 2,223           | 1,695             |
| 3             | " 28th February, 1913 | ... | ... | ... | 2,062           | 1,753             |
| 4             | " 4th April, 1913     | ... | ... | ... | 1,702           | 1,538             |
| 4             | " 2nd May, 1913       | ... | ... | ... | 1,527           | 1,309             |
| 4             | " 6th June, 1913      | ... | ... | ... | 1,321           | 1,153             |
| 3             | " 27th June, 1913     | ... | ... | ... | 1,461           | 1,126             |
| 6             | " 5th September, 1913 | ... | ... | ... | 1,131           | 1,108             |
| 5             | " 10th October, 1913  | ... | ... | ... | 1,376           | 1,021             |
| 3             | " 7th November, 1913  | ... | ... | ... | 1,452           | 1,108             |
| 3             | " 28th November, 1913 | ... | ... | ... | 1,596           | 1,192             |
| 3             | " 22nd December, 1913 | ... | ... | ... | 1,680           | 1,295             |

*Menu.*—At a majority of the Breakfast Centres the menu consists of:—

(1) Half-a-pint of cocoa, about 5oz. wholemeal bread, half of which is spread with margarine and the other half with jam, on Mondays and Wednesdays.

(2) Half-a-pint of hot skimmed milk, about 7oz. porridge with treacle or sugar, and about 2oz. seconds bread and dripping, on Tuesdays, Thursdays, and Fridays.

At the few remaining Centres the menu consists of half-a-pint of cocoa, about 5oz. of bread, half of which is spread with margarine and the other half with jam.

From time to time cases occurred in which children to whom free breakfast tickets had been granted were excluded from school on account of illness or infectious disease in the homes, who were consequently unable to take advantage of the free breakfasts. A report on the number of children affected in this way was submitted to the Provision of Meals Sub-Committee, who decided that in all cases of exclusion from school on account of ringworm, skin disease, or tuberculosis, the meals could be obtained from the nearest Breakfast Centre for consumption at the children's homes. There is little doubt that the provision of nutritious food, such as is given for free breakfasts, would be of considerable assistance in expediting the recovery of sick children, and possibly of securing an earlier return to school than would otherwise be the case.

The food provided for free breakfasts has undergone no change during the year. It is quite satisfactory in quality, and the children show an increasing liking for porridge. In several authentic cases it has been ascertained that, as the result of the liking for porridge which the child has acquired whilst receiving free breakfasts, the parent has

been induced to provide porridge at home when an improvement in family circumstances has rendered free breakfasts unnecessary. Very few children now refuse porridge. Once they have conquered that marked aversion to a new dish, which children frequently display, they eat the porridge with avidity.

On the whole the School Caretakers perform the work of serving the meals with sympathy, but the fact that this duty is performed at a time when the Caretaker finds his time fully occupied in the work of preparing the school for the morning session, introduces an element of bustle, hurry, and discomfort into the proceedings, which is prejudicial to the educational value of the meals. From the educational point of view there is still room for improvement.

In November a deputation from the Provision of Meals Sub-Committee waited upon the Executive Committee of the City of Birmingham Aid Society, with the object of ascertaining the desirability of co-operation and mutual registration of cases. A result of the conference was that the City Aid Society has undertaken to consider suggestions for the provision of food and medicine, such as milk and cod liver oil, to any sick children whose parents are unable to make suitable provision themselves. Thus the web of co-operative effort is becoming more closely woven round the necessitous child. Sixty-nine children received breakfasts as the result of representations made by the Medical Officer of Health (mainly tuberculosis contacts) or through the School Medical Department.

In the course of the work the Assistant School Medical Officers meet with children who are obviously suffering from malnutrition, and in order to combat this condition it is necessary to determine whether it is due to (1) inability to digest and assimilate the food taken, (2) lack of food in sufficient quantity, or (3) want of food of suitable quality.

All that can be directly determined by medical examination is the absence of actual disease which could account for the condition. The first cause can only be accepted in the absence of the other two factors, and the truth can only be reached by an enquiry into the circumstances at home. It is clear that if this enquiry is to be productive of lasting good it must be carried out by a trained and sympathetic person, who is able to secure the confidence of the parent and to offer timely advice as to the best means of helping the child to health. It is eminently desirable, therefore, that enquiries of this kind should be carried out by a School Nurse or Health Visitor, or in some cases by a member of a Medical Care Committee.

#### JUVENILE LABOUR EXCHANGE.

At the leaving examination any pertinent facts likely to assist in the choice of employment are entered on the "Helper's card." As has been pointed out in a previous Report, this assistance must necessarily be of a negative character, aiming at the exclusion of forms of employment which are contra-indicated by the physical conditions found, *e.g.*, dusty trades for those showing tuberculous tendencies, work requiring fine vision for those who suffer from ocular defect, etc. Hitherto the small co-relation of the medical inspection and the date of the child's leaving school has not permitted of these cards being filled in in all cases. The latest Code regulation for the examination of all children who have passed their twelfth birthday will greatly increase the total number of cards thus filled in, and should ensure that the "Helpers' cards" of practically all the children will be filled in before

leaving. The concentration of attention upon the mid-group of 7—9 years of age will further allow this final examination to be more definitely directed towards this object of the choice of suitable employment. In this matter a closer co-operation with the work of the Certifying Factory Surgeon is much to be desired. The schedule will contain a great amount of information concerning the physical development during school life, personal and family history, etc., which would be of the utmost value to that officer, whose examination of young persons under the Factory Acts cannot, under existing circumstances, be carried out in the same detail as that of the School Medical Officer. Indeed, it would seem that the examination by the Factory Surgeon, as at present performed, is redundant.

#### EMPLOYMENT OF CHILDREN.

The length of time during which many school children are employed out of school hours, which was recorded in the Annual Report for 1911, led to a detailed enquiry into the subject, which gave the following results:—

The returns from the Upper Departments of the Council and Voluntary Schools of the City showed that 9,131 children were employed, 6,157 boys and 2,974 girls. Of these 5,748, 63 per cent. were running errands, 1,825 working as domestic helps, and the remainder engaged in various other occupations. 1,085 were employed on Saturday only, 25 on Sunday only, and 47 on Saturday and Sunday only; so that 7,974 were at work on school days, and of these 7,246 work also on Saturday, and 1,368 also on Sunday. The total number of hours during which children were employed is given in the following table:—

|                         |     |     |     |     | Number of<br>children employed. |
|-------------------------|-----|-----|-----|-----|---------------------------------|
| Under 10 hours per week | ... | ... | ... | ... | 2,012                           |
| Between 10 and 20       | ... | ... | ... | ... | 2,585                           |
| "    20 and 30          | ... | ... | ... | ... | 2,145                           |
| "    30 and 40          | ... | ... | ... | ... | 1,725                           |
| "    40 and 50          | ... | ... | ... | ... | 455                             |
| "    50 and 60          | ... | ... | ... | ... | 58                              |
| "    60 and 70          | ... | ... | ... | ... | 9                               |
| Over 70                 | ... | ... | ... | ... | 1                               |
|                         |     |     |     |     | 8,990                           |
| Casual, etc.            | ... | ... | ... | ... | 141                             |
|                         |     |     |     |     | 9,131                           |

The hours given are in all cases in addition to full-time attendance at school, which is normally for  $27\frac{1}{2}$  hours per week.

It will thus be seen that the provisions of the Employment of Children Act, 1903, intended to safeguard the physical development of growing children, are flagrantly ignored. This condition of affairs renders nugatory much of the ameliorative effort of the Education Committee. Should bye-laws be proposed to regulate this employment, the question of the systematic carrying of heavy weights by children and young persons merits very careful consideration. Much attention is being paid to this question by the Inspectors of Factories (*e.g.*, see Report, 1911). It has been said that it is impossible to enforce bye-laws on this point, because physical development varies so widely for each given age period, that what is a light burden to a well-developed lad may be grossly injurious to one of equal age but of poor physical

development. A much more satisfactory basis would appear to be a standard proportion between the body weight and the weight permitted to be carried. A convenient proportion would be one-third of the body weight for boys and one-fifth of the body weight in the case of girls. This would be rendered the more easy in that the weight of all children medically examined in the schools is systematically charted, while the weighing scales form an almost indispensable part of the equipment of every firm which is likely to employ children as weight-carrying messengers.

The average weight of girls during early adolescence is greater than that of boys; the choice of a lower proportion of their body weight would therefore give still further protection from injury during the period of most rapid physical development.

One advantage of such a system would be that the weight which could be systematically carried would increase progressively instead of by sudden leaps, such as is entailed by an age basis, as can be seen from the French regulations plotted on the curve, regulations which, if logically construed, postulate a sudden accession of bodily strength on successive birthdays.

In the accompanying table several different proportions of weight to be carried to body weight have been plotted out, and incidentally show how closely these conform with the empirically chosen age weight standards in use in France and Argentina\* (*cp.* Report of Chief Inspector of Factories, 1911, page 166). The limit of 30 pounds imposed by the Home Office for a young person under 16 employed in the Potteries also conforms very closely with these results.

#### REMAND HOME.

On each Wednesday morning I have examined the children sent to the Remand Home, in order that a report may be forthcoming, if required, when the children appear at the Children's Court on Thursday mornings. The informal character of the examination and the less imposing surroundings than those associated with the Court, often render the child more at his ease, and much valuable information is obtainable in this way, more especially with regard to the motives which underlie the actions which bring the actor to the Remand Home. In the accompanying table I have analysed some of the results of this examination. The number of children found to be definitely mentally-defective (17), or to show evidence of feeble mentality sufficient to bring them to the borderland of feeble-mindedness, is only another proof of the close association of mental defect and anti-social conduct, due to the inability to resist impulse, and the lack of discriminative capacity in the control of action. There were five further children who might reasonably be characterised as moral imbeciles.

The Mental Deficiency Act, 1913, has introduced in Section 2 (1) a clause which defines the circumstances under which a defective may be dealt with under this Act, *i.e.*, a child "who in addition to being

\* In France the decree dated December, 1909, fixes the maximum loads which may be carried as follow:—

|                |         | Kg. | lbs. |
|----------------|---------|-----|------|
| Boys under 14  | .. .. . | 10  | 22   |
| 14 to 15       | .. .. . | 15  | 33   |
| 16 to 18       | .. .. . | 20  | 44   |
| Girls under 14 | .. .. . | 5   | 11   |
| 16 to 17       | .. .. . | 10  | 22   |
| 18 and over    | .. .. . | 25  | 55   |

This has been adopted by Argentina.

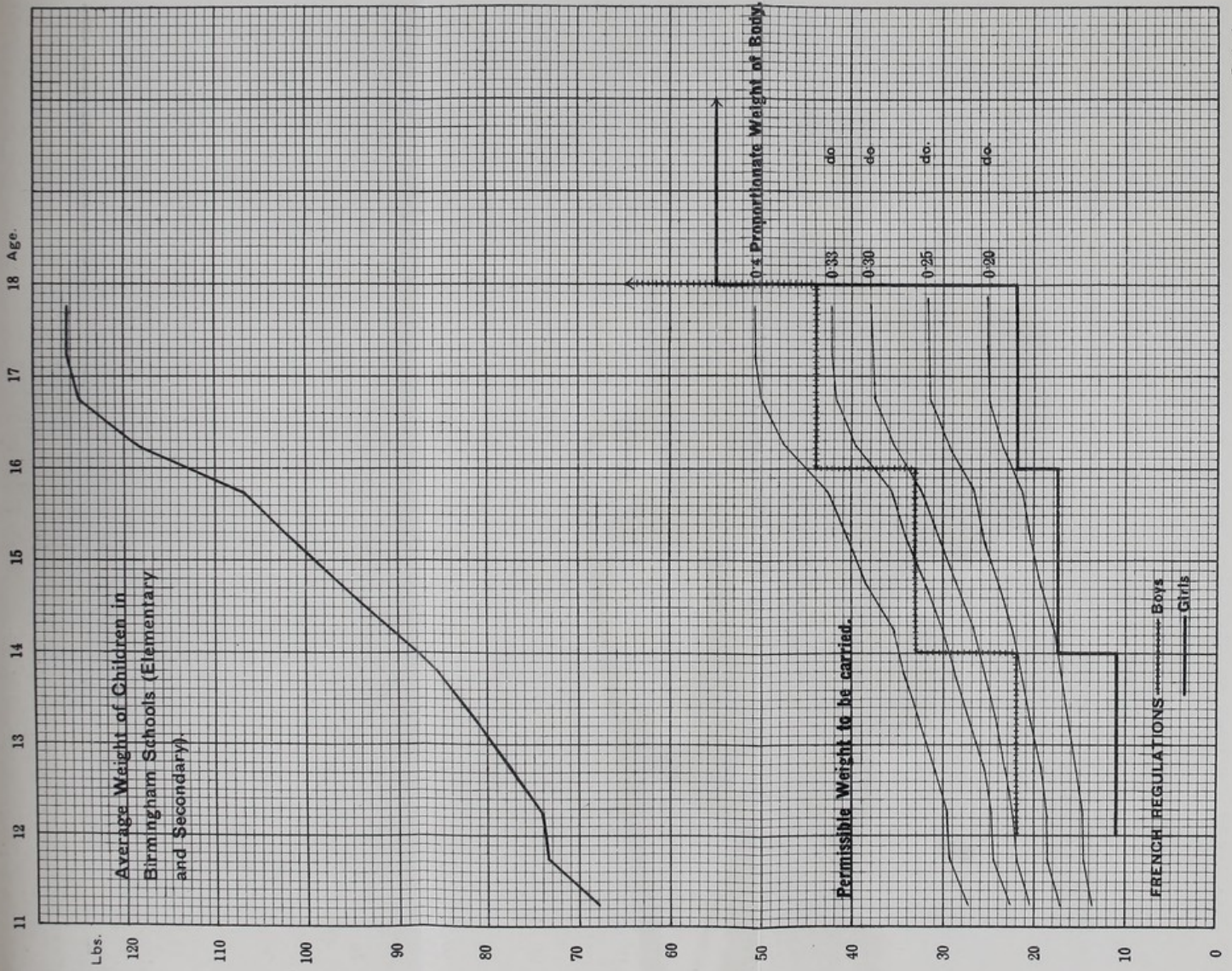
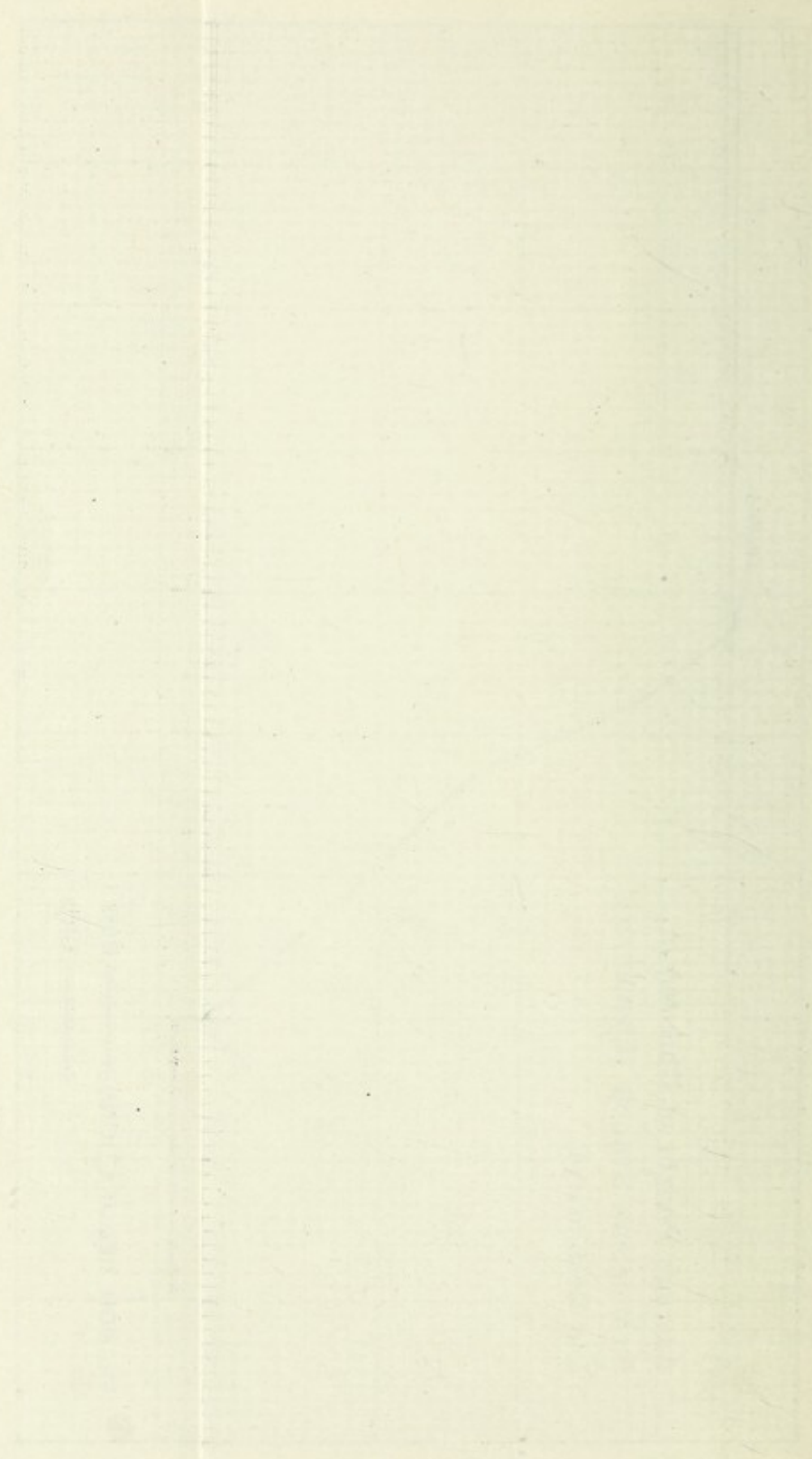


CHART SHOWING SUGGESTED SCHEME FOR ESTIMATING PERMISSIBLE LOADS FOR CHILDREN OF DIFFERENT AGES AND BODY WEIGHT.

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defective, is a person who is found guilty of a criminal offence, or who is ordered or found liable to be ordered to be sent to a certified Industrial School." The next clause deals with children already undergoing detention in a place of detention ordered by the Court, or in a Reformatory, or an Industrial School, who are found to be defective.

When this Act comes into operation it will become still more necessary to arrange this examination on a definite basis, and to secure that a report on the physical and mental condition of the children is forthcoming when they are brought before the Court. In a large number of the cases of stealing, part of the money was spent on visits to picture houses. This temptation will be materially lessened by the recently-passed bye-laws regulating the attendance of children at entertainments of this kind.

While in some cases the motives which prompted the action are clear and defined, in other cases they appear to be quite incomprehensible, and due to that strange and passing perversity which it is well recognised plays a part in the psychology of adolescence. Again, truancy and wandering seem often due to some underlying cause, dislike of ridicule, fear of punishment, bullying and teasing, which can be elicited on gaining the confidence of the child. Other acts seem to have been prompted by a love of adventure and make-believe, coupled with that lack of forethought of consequences which is characteristic of youth. These psychological facts should be taken into careful consideration in dealing with all cases of juvenile delinquency. In some cases the information was laid by members of the child's own family, an action which, it may be feared, is sometimes prompted by the desire to be relieved of the duty of supporting the child by securing committal to an industrial school. It should be noted that in 17 per cent. of the whole number information was obtained pointing to unsatisfactory home surroundings. The educational attainments of the children show clearly that these are distributed in a curve of normal frequency. The numbers are not yet sufficiently large, and the difficulty of estimating the intellectual capacities are too great to allow valid deductions to be drawn as to the correlation between intellectual capacity and juvenile delinquency.

#### REMAND HOME.

|   | 1912. | 1913. | Total. | %    |
|---|-------|-------|--------|------|
| Numbers examined ... ..                     | 86    | 130   | 216    | —    |
| Numbers in the following classification ... | 86    | 127   | 213    | —    |
| Mentally Defective ... ..                   | 7     | 10    | 17     | ·7   |
| Borderland ... ..                           | 5     | 5     | 10     | ·4   |
| Moral Imbeciles ... ..                      | 1     | 4     | 5      | 2·3  |
| Charges :                                   |       |       |        |      |
| Improper Guardianship ... ..                | 14    | 17    | 31     | 14·5 |
| Begging ... ..                              | 7     | 6     | 13     | ·6   |
| Stealing ... ..                             | 31    | 34    | 65     | 30·5 |
| Sleeping Out ... ..                         | 7     | 15    | 22     | 9·8  |
| Truancy ... ..                              | 14    | 27    | 41     | 19·5 |
| Trespassing on Railway ... ..               | 1     | 4     | 5      | 2·3  |
| Destitution ... ..                          | 3     | 8     | 11     | 5·1  |
| Housebreaking ... ..                        | 3     | 7     | 10     | 4·7  |
| Arson and Gambling ... ..                   | 2     | 0     | 2      | 3·2  |
| Breaking Probation ... ..                   | 2     | 6     | 8      | 3·7  |
| Various .. ..                               | 2     | 3     | 5      | 2·3  |
|   | 86    | 127   | 213    | —    |

|   | 1912. | 1913. | Total. | %    |
|---|-------|-------|--------|------|
| Standard Ex. VII. ... ..                    | 2     | 7     | 9      | 4·6  |
| " VII. ... ..                               | 4     | 11    | 15     | 7·7  |
| " VI. ... ..                                | 10    | 15    | 25     | 12·9 |
| " V. ... ..                                 | 18    | 14    | 32     | 16·6 |
| " IV. ... ..                                | 20    | 22    | 42     | 21·9 |
| " III. ... ..                               | 8     | 20    | 28     | 14·5 |
| " II. ... ..                                | 8     | 12    | 20     | 10·3 |
| " I. ... ..                                 | 6     | 11    | 17     | 8·8  |
| Infants ... ..                              | 2     | 3     | 5      | 2·5  |
| TOTAL ... ..                                | 78    | 115   | 193    | —    |
| Known unsatisfactory home circumstances ... | 8     | 28    | 36     | 16·9 |
| Known physical defects... ..                | 29    | 22    | 51     | 23·9 |

## EPILEPTIC REGISTER.

At the close of the year there were 99 children upon this register, *i.e.*, children whose symptoms have made the diagnosis certain, yet who are not prevented thereby from continuing their education in the ordinary schools. Each is examined by me every six months, and a special schedule is used, upon which particulars as to attacks in school or at home are entered. The parents are encouraged to keep a dated record of the fits, their intensity, and duration. From the material thus obtained the following results were recorded:—

|                                 |    |
|---------------------------------|----|
| Improving .. ..                 | 34 |
| <i>In statu quo ante</i> ... .. | 27 |
| Degenerating ... ..             | 8  |
| Insufficient evidence ... ..    | 30 |
|                                 | 99 |

It is noticeable that of the 70 in whose family history enquiry had been made, a history of fits or insanity in the family was recorded in 45·7 per cent.

## RESEARCH.

An investigation has been carried out into the anthropometrical characters of children suffering from high degrees of myopia, more especially with a view to determine whether there is any relation between the myopia and any special cranial shape, stature, pigmentation, etc. The data which have been accumulated have not yet been worked out.

## SPECIAL SCHOOLS.

During the year there were:—

|                                    |     |     |     |     |             |
|------------------------------------|-----|-----|-----|-----|-------------|
| Certified for Deaf Schools         | ... | ... | ... | ... | 9 children. |
| " for Mentally-Defective Schools   | ... | ... | ... | 187 | "           |
| " for Physically-Defective Schools | ... | ... | ... | 86  | "           |
| " as Imbeciles or Idiots           | ... | ... | ... | 21  | "           |
| " for Blind Institutions           | ... | ... | ... | 12  | "           |
| " for Partially Blind Classes      | ... | ... | ... | 28  | "           |
| " for the Open Air School          | ... | ... | ... | 73  | "           |
| " for Epileptic Institutions       | ... | ... | ... | 9   | "           |
| TOTAL                              | ... | ... | ... | 425 | "           |

In addition 228 children were examined under the Elementary Education (Defective and Epileptic Children) Act, 1899, who were, however, considered capable of education in the ordinary Elementary Schools. The figures showing the number of defective children known in the area either attending the Special Schools or elsewhere, or not in attendance at any school, are summarised in the table at the end of this Report.

## CHILDREN SUPPORTED IN INSTITUTIONS (31ST DECEMBER, 1913).

*Blind :*

|  |     |     |     |    |
|--|-----|-----|-----|----|
| Birmingham Royal Institution for the Blind | ... | ... | ... | 46 |
| Liverpool (R.C.) Blind Institution         | ... | ... | ... | 4  |
| Stoke-on-Trent Blind Institution           | ... | ... | ... | 1  |
| Total                                      | ... | ... | ... | 51 |

*Deaf :*

|                                  |     |     |     |    |
|----------------------------------|-----|-----|-----|----|
| Edgbaston Deaf Institution       | ... | ... | ... | 9  |
| Stoke-on-Trent Deaf Institution  | ... | ... | ... | 1  |
| Jews' Deaf and Dumb Home, London | ... | ... | ... | 1  |
| Total                            | ... | ... | ... | 11 |

*Epileptic :*

|                         |     |     |     |    |
|-------------------------|-----|-----|-----|----|
| Chalfont Colony         | ... | ... | ... | 1  |
| Lingfield Colony        | ... | ... | ... | 9  |
| Maghull Home            | ... | ... | ... | 9  |
| Much Hadham (R.C.) Home | ... | ... | ... | 1  |
| Starnthwaite Colony     | ... | ... | ... | 5  |
| Total                   | ... | ... | ... | 25 |

*Mentally-Defective :*

|                               |     |     |     |   |
|-------------------------------|-----|-----|-----|---|
| Hillingdon (R.C.) Institution | ... | ... | ... | 2 |
| Sandlebridge Institution      | ... | ... | ... | 2 |
| Sandwell Hall Institution     | ... | ... | ... | 2 |
| Total                         | ... | ... | ... | 6 |

GRAND TOTAL ... 93

## MENTAL DEFICIENCY SCHOOLS.

The passage of the Mental Deficiency Act, 1913, has given a special importance to the year under review, and has placed upon the Education Authority (Section 31) the duty of ascertaining what children within their area are defective, of sub-dividing these into ineducable and educable (within the meaning of the Elementary Education (Defective and Epileptic Children) Act, 1899), and of determining which are in need of care and control.

The definition of " feeble-minded persons " given in the Act is a two-fold one, depending upon criteria of conduct on the one hand, and of intellectual capacity on the other, viz. :—

(1) " Persons in whose case there exists from birth or an early age mental defectiveness, not amounting to imbecility, yet so pronounced that they require care, supervision and control," and

(2) " Children who by reason of such defectiveness appear to be permanently incapable of receiving proper benefit from the instruction in ordinary schools."

The word "*permanently*" in this definition is of the utmost importance, for, as the normal age for leaving school is from 13 to 14 years, it becomes necessary to determine definitely before final action is taken whether the defect is transitory or permanent. In this determination various considerations must be taken into account. In the first place it is now recognised that wide variations of mentality may be found in any group of children, and that the distribution of mental capacity in the community follows the " normal curve of frequency." This is, however, only true of the higher values of mental capacity, for, as we descend the scale through the " feebly-gifted " to the lower levels of feeble-mindedness, we find that the normal frequency distribution is upset by some intercurrent influences, and that the number of mental deficient in the population is much greater than can be accounted for on mathematical considerations alone. These intercurrent causes are undoubtedly alcohol, specific disease, glandular insufficiency, tuberculosis, etc., which are the most potent causes of degeneration of the nervous system, of which mental deficiency is the direct result. In the Report for 1912 various facts were adduced to prove that many of the children who are presented for examination under the 1899 Act show a delayed emergence of the special capacities for reading and writing, or for calculation, a condition to which I have applied the word "*larval*." In these the condition is evolutionary. There are thus two influences at work in the production of a lowered mental capacity, and the distinction between the two is of fundamental importance. In the evolutive type the forces of evolution have not yet brought the child up to the average mental level demanded by our modern educational and social systems. In the devolutive type the toxic products have exercised such an influence upon the brain tissues of the children as to produce degenerative changes which bring down their mental potentialities below that same level. Thus, while in the one case the predisposing influence is truly hereditary, as is seen in the familial association of word-blindness or word-deafness, in the other it is congenital rather than hereditary. The outlook in each case is totally different. In the former case there is reasonable prospect that by careful training the developmental deficiencies may be eked out

sufficiently to render the individuals capable of self-support in, it may be, a lowly sphere of life. In the latter case, in which the deficiency is due to degenerative or devolutional changes, the children are branded with a curse which no system of education can serve to remove. These two influences may be represented by the analogy of two streams whose currents set in opposite directions, yet both passing under the same bridge. This distinction must not, of course, be pressed too far, and the problem is less simple than this statement would seem to suggest, but it will, however, serve to remind us that no test should be omitted which may enable us to form a judgment concerning the underlying *cause* of the conditions under investigation, and, to forecast to some extent, the future possibilities of the child. In the Wassermann reaction, for instance, we have a valuable aid in estimating the part played by one cause of degeneration which should not be overlooked. There is also ample scope for a system of special observation of individual cases and the application of properly devised psychological tests, for which the existence of the University offers an exceptionally favourable opportunity.

The introduction into the Act of a definition of the "Moral imbecile" for the first time allows special provision to be made for dealing with this peculiarly difficult class of defective. The addition, however, of the words "some permanent mental defect" introduces a difficulty in the case of *children* who show "strong, vicious, or criminal propensities, on whom punishment has little or no deterrent effect." A number of such children are fully up to the intellectual standard of their age, and are capable of profiting by instruction which is quite beyond the mental scope of the ordinary feeble-minded child. As an example of this difficulty the following case is worthy of record:—

X.Z., then aged seven years and seven months, was first reported in January, 1912, on account of his habits of continued pilfering and truancy, which had been noticed while he was in the Infants' Department. He had already been in the hands of the Police for taking money. The notes of the examination are: "Calculates quite well, and has a good fund of general information, and reads a Standard I. book satisfactorily. Home conditions bad." (His mother is an immoral and drunken woman, who has brought to penury his father, aged 75.) On 28th June, 1912, his master wrote:—"The boy is repeatedly found in possession of goods not his own . . . . He watches people leave their houses for a moment and then enters, sometimes venturing upstairs and carrying off whatever attracts his attention for a moment. In his disposition of the stolen articles he is almost ostentatious in the way he bestows them upon other persons. In short, the whole of his conduct is marked by utter irresponsibility." As his conduct, which was clearly due to an abnormal mental make-up, showed no improvement, and as he had become associated with undesirable companions, with whom he persistently stayed out at night, he was certified to attend a Special School for better observation. The following is a record of a single day's escapades:—

July 18th.—*Morning School*. Seen to take a penny from pocket of boy sitting next to him and then to remove to next row.

*Noon*. Stole penny from pocket of woman waiting for tram.  
Stole peas from greengrocer's shop.

On February 4th, 1914, I examined him at the Remand Home, whither he had been sent on a charge of stealing. He showed no special evidence of intellectual deficiency. Knowing him to have attended a

Special School, but not recognising the lad, I noted: "Partially-deaf case. I believe not mentally-defective, but hard of hearing."

The report from the Special School, under date February 10th, ran as follows:—

He has worked in the first class with boys 13 years of age, and greatly excelled them in ability. In the workshops, being rather physically undeveloped, he could only be put to do light work, *e.g.*, tailoring and leather stitching, at which he handled the tools well, and was industrious, but the lad much preferred lessons to manual work. It is the moral side of his character which is chiefly at fault. His pilfering out of school has been a continual worry, and has gradually been becoming worse. We have tried to impress upon him the evil of such conduct, but with no effect, and I feel sure his father, who is over 70 years of age, has also done his best, but all to no purpose.

This case is by no means unique. It is clear that apart from his "criminal propensities" the lad would pass muster in an Elementary School, for he does not show at present that evidence of "some permanent mental defect," which is part of the statutory definition.

He was only certified for attendance at a Special School after six months' careful observation, and then only because it was considered that a break from his previous surroundings would be beneficial, and that he could be better kept under supervision there.

He is, however, clearly unable to control his conduct in conformity with the laws of social order, and his family and personal history do not afford much hope of permanent improvement in the future. His intellectual abilities, however, which it is to be feared are likely to enable him the more readily to prey upon Society later on, place him above the level of the instruction given in an Industrial School for the feeble-minded. These cases need care and control, and if they cannot be admitted into ordinary Industrial Schools, special Institutions will be necessary for them.

Another group of cases which has an important relation to the problem is that of those feeble-minded individuals whose nervous instability and imperfect capacity of resistance renders them liable to the super-imposition of actual insanity on their feeble-mindedness. This association between instability of mind and actual insanity is so close that any measures which can, by the exercise of foresight, lessen the stress of adolescence may be productive of valuable results. The Mental Deficiency Act will be able to do an important co-ordinating and valuable preventive work.

The Asylums Committee of the London County Council impose the duty on the Medical Superintendents of all the London Asylums to supply the names and addresses of all children under 10 years of age of patients admitted. This information is handed to the Education Committee, so that special observation may be given to these children. A similar scheme could be usefully inaugurated in Birmingham, together with a reciprocal scheme whereby information could be supplied as to the school history of younger patients entering the asylum.

In order that greater and more permanent value may be obtained from the reports of Head Teachers prior to examination under the Elementary Education (Defective and Epileptic Children) Act, 1899, and to preserve a record of the condition found at this examination, the following form has been introduced. It is based upon that suggested by Sir George Newman in his Annual Report for the year 1909:—

*This page to be filled up by Teacher sending child to be examined with a view to admission to Special School.*

- Date.....
1. Name of Child.....
  2. Address.....
  3. School..... Department.....
  4. Standard or Class.....
  5. Date of Birth..... Present Age (years and months).....
  6. Family History, home circumstances, regularity of school attendance, etc.....
  7. How long has child attended any school?.....
  8. General conduct, habits, etc. ....
  9. Reading (degree acquired ; *e.g.*, letters only ; words of 1, 2, 3, etc., letters).....
  10. \*Calculation—  
(a) Addition to..... (b) Subtraction to.....
  11. \*Writing—  
(a) Copy..... (b) Transcription..... (c) Dictation.....
  12. \*Drawing.....
- \* NOTE—In all cases it is helpful to bring specimens of the child's classwork, however meagre.
13. Manual Powers (degree acquired).....
  14. Attention (To what degree is the attention sustained?).....
  15. Does the child show response or interest?.....
  16. Is the child—  
(a) Amenable to control?..... (b) Nervous or retiring?.....  
(c) Self-assertive?..... (d) Spiteful or revengeful?.....

Signed..... *Head Teacher.*

In filling up this form, please avoid general expressions, such as "fair," "moderate," etc., and say in the simplest terms what the child can do.

#### MEDICAL EXAMINER'S REPORT.

1. Family history.
  2. Personal history.  
(a) Diseases of childhood..... (b) Alleged cause of condition.....  
(c) Commencement of (i) walking..... (ii) talking.....
  3. Physical condition.  
(a) General nutrition..... (b) General balance of body.....  
(c) Speech..... (d) Eyes and sight..... (e) Ears and hearing.....  
(f) Nose and throat..... (g) Teeth..... (h) Deformities or stigmata.....  
(i) Hair and skin..... (j) Reflexes..... (k) Cranial conformation.....
  4. Mental condition.  
(a) Attention..... (b) Interest..... (c) Initiative.....  
(d) Association of ideas (recognition of fallacy, etc.).....  
(e) Recognition of objects, sounds, pictures, etc. ....  
(f) Execution of commands .....
  5. Results of intelligence tests :—  
(a) Form Board, etc..... (b) Reading.....  
(c) Writing..... (d) Calculation..... (e) Memory.....
  6. Diagnosis.
  7. Procedure recommended.
- Date..... Signed.....

#### PHYSICALLY-DEFECTIVE SCHOOLS.

Reference has already been made to the need of residential provision for children suffering from tuberculous bone or joint disease. It is becoming increasingly clear that much valuable time is likely to be saved and more permanent benefit is likely to result for many of these children from a period of residence in a properly appointed institution than can be obtained under the present system of day attendance. At present there is a lack of co-ordination between the educational and curative aspects of the work, and it is only by a residential scheme that continuous treatment and education under suitable hygienic conditions

can be secured. It is indeed possible that a portion of the expenditure now entailed by the provision of ambulances to convey the children between the schools and their often unsatisfactory homes could be saved, and devoted to the provision of residential treatment. Under any circumstances there will always be a need for Physically-defective Centres for children handicapped with paralysis, heart disease, etc., but the majority of these children could be allowed to walk, provided that there are sufficient Special Schools for the physically-handicapped. At present the total accommodation is insufficient, and there is always a long waiting list and much delay in consequence.

If the after-history of the tuberculous children who have attended the Physically-defective Centres is followed up, it becomes clear that a considerable number of these have died from tuberculosis, a fact which gives ground for the inference that the disease has merely been arrested, but not cured. The outlook for cases treated in residential institutions is apparently more favourable. It is difficult to adduce accurate figures in support of this statement, but from returns made by the Head Mistresses of the two Centres it is found that 26 are known to have succumbed to tuberculosis, viz. :—

|                            | Age at death (over 11 years). | Age at death (over 11 years). |           |
|----------------------------|-------------------------------|-------------------------------|-----------|
|                            |                               | 12 years                      | 3 deaths. |
| Lungs ... ..               | 7                             | 13                            | 1         |
| Spine ... ..               | 5                             | 14                            | 2         |
| Meninges ... ..            | 3                             | 15                            | 3         |
| Kidney ... ..              | 1                             | 16                            | 5         |
| Locality not stated ... .. | 10                            | 20                            | 2         |
| <b>TOTAL</b> ... ..        | <b>26</b>                     | 21                            | 1         |

The physical conditions which have resulted in certification of children now in attendance at the two Physically-defective Centres are as follow :—

(a) *Tuberculous.*

|  | Boys.     | Girls.    | Total.    |
|--|-----------|-----------|-----------|
| Spinal Caries ... ..                     | 23        | 13        | 36        |
| Tuberculous Hipjoint ... ..              | 17        | 11        | 28        |
| "    Kneejoint ... ..                    | 8         | 6         | 14        |
| "    Fingers, Legs, Arms, or Feet ... .. | 4         | 2         | 6         |
| "    Kidneys ... ..                      | —         | 1         | 1         |
| "    Lungs ... ..                        | —         | 2         | 2         |
| <b>Totals</b> ... ..                     | <b>52</b> | <b>35</b> | <b>87</b> |

(b) *Non-Tuberculous.*

|                                       |           |           |            |
|---------------------------------------|-----------|-----------|------------|
| Infantile Paralysis ... ..            | 35        | 17        | 52         |
| Rickets ... ..                        | 12        | 16        | 28         |
| Various Deformities ... ..            | 6         | 7         | 13         |
| Talipes ... ..                        | 7         | —         | 7          |
| Heart Disease ... ..                  | 2         | 8         | 10         |
| Congenital Dislocation of Hips ... .. | —         | 7         | 7          |
| Scoliosis ... ..                      | 6         | 8         | 14         |
| Hemiplegia ... ..                     | 1         | 2         | 3          |
| Spastic Paralysis ... ..              | 4         | 6         | 10         |
| Pseudo-hypertrophic Paralysis ... ..  | 1         | 1         | 2          |
| Lupus ... ..                          | 1         | —         | 1          |
| Amputation of Arm ... ..              | 1         | —         | 1          |
| Old Fracture ... ..                   | 1         | —         | 1          |
| Hæmophilia ... ..                     | 1         | —         | 1          |
| Specific Disease ... ..               | 1         | —         | 1          |
| Sarcoma ... ..                        | —         | 1         | 1          |
| Enlarged Spleen ... ..                | 1         | —         | 1          |
| Friedreich's Ataxia ... ..            | —         | 1         | 1          |
| Fragilitas Ossium ... ..              | —         | 1         | 1          |
| Progressive Muscular Atrophy ... ..   | —         | 2         | 2          |
| <b>Totals</b> ... ..                  | <b>80</b> | <b>77</b> | <b>157</b> |

**TOTAL** ... **244**

*Physically-handicapped Children and Physical Exercises.*

The variety of handicaps from which the children in the Physically-defective Schools suffer, and the fear that some injury might inadvertently be inflicted, have hitherto led to a reluctance to make any real attempt to give any physical exercises worthy of the name. This has always been a distinct loss to the children in attendance, for many have thereby been deprived of the advantages which accrue to a system of exercises suitably graded to the needs of the individual children. The remedial value of properly supervised gymnastic exercises for physically-handicapped children is so great that there is ample scope in the Physically-defective Schools for a special instructor who has received proper training in medical gymnastics. Such an instructor could also supervise the physical exercises in the other Special Schools. In this connection mention may be made of the voluntary services given by the students of the Anstey College for Physical Training at Fentham Road Elementary School. These are particularly valuable, as there are in attendance there a number of physically-handicapped children from the adjoining Children's Homes under the Board of Guardians.

In order to supply some guidance to teachers in the selection of suitable physical exercises the accompanying memorandum was drawn up (July, 1913), with the kind help of Mrs. F. Impey (author of "Handbook of Free-standing Gymnastics").

*Memorandum*

*on Physical Exercises for Physically-handicapped Children.*

Physical exercises are now recognised as one of the most valuable agents at our command in the treatment of physically-handicapped children from three points of view:—

- (1) The improvement of the general physical condition.
- (2) The cure or amelioration of the condition producing the handicap.
- (3) The prevention of deformity.

The children who attend the Cripple Schools suffer from a variety of physical defects. These, however, admit of a certain degree of grouping, *e.g.*:—

- (1) Bone or joint disease—generally due to tuberculous infection.
- (2) Defects in nervous or muscular system. Infantile paralysis, muscular dystrophies.
- (3) Congenital deformities, rickets, and injuries.
- (4) Visceral defects—heart disease.

The children in the first three groups can again be classified according to the part of the body affected, *e.g.*, upper or lower limbs, spine, individual joints, etc.

It will, therefore, be seen that no given series of physical exercises can be generally applied to all the children in attendance, but that a very careful discrimination must be made, and the exercises used must be selected for each individual case.

It will be further recognised that this selection can only be made by a person who has had the adequate clinical experience and the training in the execution of the various exercises. Without this twofold

knowledge, which need not necessarily be combined with a medical qualification, there will be a possible risk of harm, and even of disaster.

A word may here be said in favour of physical exercises in the curriculum of Mentally-defective Schools. How valuable an instrument of training gymnastics may be made for the children in these schools may be understood from the experience of Darenth and the Waverley Colony. In both of these Institutions thoroughly trained "Swedish" gymnasts are employed, and in both the results are extraordinarily good.

In the various schools under the Special Schools Sub-Committee, containing 1,370 children, there would appear to be ample scope for the whole-time services of a thoroughly trained instructor and supervisor of physical exercises. In the absence of any properly trained supervisor many most valuable exercises must necessarily be omitted, and as these omissions break into the sequence of each series the full value of those exercises which are given cannot be attained. There are, however, certain general exercises which can be given with great advantage to the handicapped children. These are set out in the following scheme, based upon the syllabus of physical exercises drawn up by the Board of Education:—

| Name of Exercise. | No. | Table of Exercises in Board of Education Syllabus.               | REMARKS.<br>(In all cases of Tuberculosis it is presumed in this table that the disease is not active.)   |
|-------------------|-----|--|---|
| Introductory ...  | 1   | 1—39   | All classes of children can attempt these without harm. Heart cases should avoid all arm movements above the shoulder line.<br>Rickety, paralysed and deformed children (other than those suffering from heart disease or tuberculosis) may attempt all movements to point at which pain might be produced. Each week of steady practice will extend the sphere of movement without a sense of pain.<br>Head movements in spinal caries should be very carefully watched, and repeated twice or thrice in sequence, and after a short resting interval be again repeated. |
| Arch-flexions ... | 2   | 1—30, omitting 2B in those tables in which this exercise occurs. | Heart cases, tuberculous spines and shoulders.<br>Rickety and paralysed children can go beyond Table 30.  |
| Heaving ...       | 3   | 1—48   | Suitable for most cases.<br>Heart cases should avoid all arm stretchings upwards, but should take sideways stretchings instead.<br>Lateral curvature cases should do no alternate arm stretchings, but make all movements symmetrical and bilateral.  |
| Balancing ...     | 4   | 1—18   | Heart cases may take these balancing movements, but care should be taken to prevent strain in the harder exercises in the curtsey type.   |
|                   |     | 35, 40, 41   | Valuable for handicapped children of all sorts, and may be inserted in earlier lessons than Table 18.   |

| Name of Exercise.        | No. | Table of Exercises in Board of Educat on Syllabus. | REMARKS.<br>(In all cases of Tuberculosis it is presumed in this table that the disease is not active.)  |
|--------------------------|-----|--|--|
| Shoulder Exercises       | 5   | —  | As for No 3.<br>Heart or spinal caries cases should not take arm movements when in the forward-arch position, but arm positions may be taken prior to arching the trunk forward. |
| Lateral Trunk Exercises. | 6   | 1—48   | Lateral curvature cases to omit all side bendings, but may do side turnings.<br>Heart cases omit numbers 17, 29, 31, 32, 34, 35, 36, 39, 41, 42, 44, 46, 48.                     |
| Marching ...             | 7   | 1 <i>ad lib.</i>                                   | Heart cases to omit running, jumping and skipping.<br>Spinal caries cases to omit all jumps where both feet leave the floor simultaneously.                                      |
| Breathing ...            | 8   | <i>ad lib.</i>                                     |  |

*Physically-defective Children and Employment.*

Attention may here be drawn to the Report on "Some Possible Trades for Physically-handicapped Children," prepared by Mr. R. S. Smirke, for use in connection with the Juvenile Employment Exchange.

PARTIALLY-BLIND DAY CLASSES.

There is always a considerable waiting list of children suitable for admission to the Partially-blind Day Classes at Edgbaston for whom there is no accommodation. The Blind Institution is not conveniently situated for many of these, and the proposed formation of a second class in Aston will prove a valuable addition to the existing accommodation. The classrooms in Whitehead Road should, however, be altered to secure much more open window ventilation.

The causes of the condition which has led to the loss of sight have been:—

|                            | Boys. | Girls. | Awaiting Admission. | Total. | %    |
|----------------------------|-------|--------|---------------------|--------|------|
| Strumous Keratitis ...     | 5     | 5      | 5                   | 15     | 20.5 |
| Congenital Cataract ...    | 4     | 4      | 1                   | 9      | 12.3 |
| High or Progressive Myopia | 11    | 10     | 8                   | 29     | 39.7 |
| Congenital Syphilis...     | 1     | 4      | 3                   | 8      | 10.9 |
| Ophthalmia Neonatorum ...  | 2     | 3      | 1                   | 6      | 8.2  |
| Optic Atrophy ...          | 2     | 0      | 1                   | 3      | 4.1  |
| Congenital Defects ...     | 1     | 1      | 0                   | 2      | 2.7  |
| Injury... ..               | 1     | 0      | 0                   | 1      | 1.7  |
| TOTALS ...                 | 27    | 27     | 19                  | 73     | —    |

Mr. Thurman, General Superintendent of the Blind Institution, supplies the following report:—

The number of children on the books of the Partially-blind Day Classes during the year was 28 boys and 39 girls.

The number withdrawn was 5 boys and 12 girls. (Of these one girl was below the age of fourteen years.)

The number transferred to ordinary schools was 2 girls, while 1 girl became a resident pupil.

The number on the books on February 20th, 1914, was 23 boys and 24 girls.

On the whole the good progress of the day scholars during the school year 1913-14 has been fairly well maintained. A higher standard of work has been attained, though the results are not entirely satisfactory; this is largely owing to the fact that the attendance still leaves much to be desired, especially in the girls' department of late. The average percentage of attendance is 80 per cent. for boys and girls.

A decided improvement is noticeable in the general conduct and appearance of the scholars, especially in the matter of personal cleanliness, though the condition of clothing and boots calls for improvement, and is a frequent cause of absence.

The method of instruction is practically the same. Scholars having a sufficient measure of sight continue to work on normal methods to a limited extent. During the year this work has been aided by the provision of specially-made desks with blackboards for writing, and the introduction of wall sheets for reading.

The manual courses consist of carpentry, chair-seating, elementary basket work and boot making for boys, while the girls take knitting, chair-seating, elementary basket work, clay modelling, and paper work. Recently we have started cookery, laundry, and housewifery for the elder girls, a specially qualified teacher having been appointed for the purpose. The time table allows of half-time instruction being given in cookery, laundry, and housewifery, and good progress has been made by the nine girls who have attended the course.

#### SCHOOLS FOR THE DEAF.

The abandonment of the Gem Street Council School after the summer holidays gave an opportunity for the long needed expansion of the Deaf Centre, for which the Council School buildings are admirably suited. By amalgamating the Aston Centre with that of Gem Street School it has further given the children the advantage of the shower bath installation in the latter building. The use of the basement of the Gem Street Mentally-defective Centre as an Inspection and Treatment Clinic, where a Nurse or School Doctor is almost daily in attendance, will doubtless prove very useful for the treatment of minor ailments, such as discharging ears, sore eyes, etc.

The number of children in the Deaf Schools is:—

|                         |     |    |
|-------------------------|-----|----|
| Gem Street Centre ...   | ... | 79 |
| Moseley Road Centre ... | ... | 53 |

|                  |     |            |
|------------------|-----|------------|
| <b>TOTAL</b> ... | ... | <b>132</b> |
|------------------|-----|------------|

The teaching is on the oral system, except for ten children at Gem Street, whom it has been found necessary to teach on digital lines. The teeth of the children have received attention at the Dental Clinics.

#### *Partially-deaf Children.*

Some further special provision for the partially-deaf or hard-of-hearing children is urgently needed (see Annual Report for 1911). Some of the more severe cases are at present taught in the Deaf Centres, in order to give them the necessary training in lip-reading. These children, however, belong to the hearing world, and not to the world of silence, and it is of the greatest importance that they should be amongst hearing and speaking children. But there are, in addition, many less severe cases who are attending ordinary Elementary Schools who cannot gain the full benefit from the education there given. Their progress becomes retarded, and often the real cause of their seeming dulness is unrecognised. It is difficult to give precise figures, but it has been estimated that about 1 per cent. of children have defective hearing. This figure need cause no surprise when the number of children suffering from discharging ears and large adenoid growths is taken into consideration.

#### UFFCULME OPEN-AIR SCHOOL.

Since the opening in September, 1911, 335 children have been admitted to the school. The causes of certification have been as follow:—

|                                 |     |     |     |     |                 |
|---------------------------------|-----|-----|-----|-----|-----------------|
| General Debility                | ... | ... | ... | ... | 147             |
| Anæmia                          | ... | ... | ... | ... | 81              |
| Malnutrition                    | ... | ... | ... | ... | 36              |
| Chorea                          | ... | ... | ... | ... | 16              |
| Phthisis Contacts               | ... | ... | ... | ... | 29              |
| Tuberculous Glands and Debility | ... | ... | ... | ... | 6               |
| Lupus of old standing           | ... | ... | ... | ... | 3               |
| Heart Diseases                  | ... | ... | ... | ... | 4               |
| Phlyctenular Ophthalmia         | ... | ... | ... | ... | 2               |
| Bronchiectasis                  | ... | ... | ... | ... | 3               |
| Tuberculous Peritonitis         | ... | ... | ... | ... | 2               |
| Rickets and Anæmia              | ... | ... | ... | ... | 1               |
| Bronchitis                      | ... | ... | ... | ... | 4               |
| Old Pleurisy                    | ... | ... | ... | ... | 1               |
|                                 |     |     |     |     | <hr/> 335 <hr/> |

The next table shows the length of time which the children have spent at the Open-air School:—

|                                       |     |     |     |     |                 |
|---------------------------------------|-----|-----|-----|-----|-----------------|
| Under three months                    | ... | ... | ... | ... | 15              |
| Between three and six months          | ... | ... | ... | ... | 54              |
| Between six and nine months           | ... | ... | ... | ... | 63              |
| Between nine and twelve months        | ... | ... | ... | ... | 44              |
| Over twelve months                    | ... | ... | ... | ... | 33              |
| Still in attendance (varying periods) | ... | ... | ... | ... | 126             |
|                                       |     |     |     |     | <hr/> 335 <hr/> |

A re-examination of children transferred to ordinary schools at subsequent periods has given the following results:—

#### *Examined after three months at ordinary School—*

|                     |     |     |     |    |     |       |
|---------------------|-----|-----|-----|----|-----|-------|
| Satisfactory        | ... | ... | ... | 92 | ... | 65.3% |
| Fairly satisfactory | ... | ... | ... | 22 | ... | 15.6% |
| Unsatisfactory      | ... | ... | ... | 27 | ... | 19.1% |

*Examined after nine months at ordinary School—*

|                     |     |     |     |     |     |     |        |
|---------------------|-----|-----|-----|-----|-----|-----|--------|
| Satisfactory        | ... | ... | ... | ... | 74  | ... | 72.5 % |
| Fairly satisfactory | ... | ... | ... | ... | 17  | ... | 16.8 % |
| Unsatisfactory      | ... | ... | ... | ... | 11  | ... | 10.7 % |
|                     |     |     |     |     | 102 |     |        |

These results go to prove that a large proportion of the children who have been sent to the Open-air School are placed thereby on a permanently higher plane of health, but the educative value of the period of attendance is also very great, and makes the children veritable missionaries of health in their homes and immediate surroundings.

The list of children awaiting admission is now very long; in fact the number of names upon it exceeds the number of admissions in any given year, and the demand for accommodation is much greater than the possibility of supplying it. By the use of the north-west end of the dining hall for the purposes of a class it would be possible to bring to a few more children the advantages of the school.

A pleasing feature in this connection is the number of children who are recommended as suitable cases by Medical Practitioners and Medical Officers to Hospitals in the City. In many cases the parents themselves have made application. Unfortunately many of these children live too far away to allow them to attend.

Children who are certified for attendance receive dental treatment at one of the School Clinics, and those who are already in attendance have also received treatment.

## NUMERICAL RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA.

[See Appendix, Annual Report Chief Medical Officer, Board of Education, 1912, page 414.]

|  | Boys. | Girls. | Total. |
|--|-------|--------|--------|
| <i>Blind (including partially blind) —</i>   |       |        |        |
| Attending Public Elementary Schools  | 8     | 8      | 16     |
| " Certified Schools for the Blind  | 52    | 49     | 101    |
| Not at School  | 7     | 6      | 13     |
| <i>Deaf and Dumb—</i>  |       |        |        |
| Attending Public Elementary Schools  | —     | —      | —      |
| [Number of Partially-deaf Children not ascertained.]   |       |        |        |
| Attending Certified Schools for Deaf (including 11 in Residential Schools)                                 | 80    | 63     | 143    |
| <i>Mentally-Defective—</i>   |       |        |        |
| Feeble Minded: Attending Certified Schools for the Mentally-Defective                                      | 557   | 393    | 950    |
| Imbeciles or Idiots: Not at School   | 90    | 79     | 169    |
| <i>Epileptics—</i>   |       |        |        |
| Attending Public Elementary Schools  | 49    | 50     | 99     |
| " Certified Schools for Epileptics   | 14    | 11     | 25     |
| <i>Physically-Defective—</i>   |       |        |        |
| Tuberculosis: Children suffering from all forms of tuberculosis, including pulmonary, notified during year | —     | —      | 1056   |
| Tuberculosis, other than pulmonary: Attending Certified Schools for Physically-Defective Children          | 52    | 35     | 87     |
| Cripples other than tuberculous attending Certified Schools  | 80    | 77     | 157    |

GEORGE A. AUDEN, M.D., M.R.C.P., D.P.H.,  
School Medical Officer.

March, 1914.

REPORT ON MEDICAL INSPECTION  
OF  
CHILDREN ATTENDING THE SPECIAL SCHOOLS FOR THE  
YEAR 1913.

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MENTALLY DEFECTIVE.

(See Table I.)

There is an ever-increasing number of these children to be examined each year. On the whole, nutrition, clothing, and boots are worse than in 1912. There is no great advance in cleanliness, for though few children were actually verminous, there was a large number with nits in their heads, which proves that vermin had been there recently.

There are fewer eye defects, apart from vision, and not quite such a large proportion of defective teeth, but these, as usual, head the list of defects.

Fewer parents attended, but those who did showed great interest, and there were no cases of refusal.

The teachers and bath attendants rendered me all possible assistance, and were much interested in the work.

PHYSICALLY DEFECTIVE.

(See Tables II. and III.)

In these schools the general nutrition and clothing are both somewhat worse than in 1912.

The proportion of tuberculous cases is slowly but steadily rising. In 1910 it was 24 per cent., in 1911 it dropped to 16 per cent., in 1912 it was 37.59 per cent., in 1913 it was 38.59 per cent. Other deformities and diseases vary but slightly in frequency.

Teeth are attended to in the Dental Clinics in the same way as those of ordinary school children. The eye defects also receive attention. In spite of this, the proportion of children with defective teeth still requiring attention remains rather high. (See Table II.)

In both the schools for the physically defective the school nurses assisted in the examination, as well as the Head Mistress, and were much interested.

## DEAF.

*(See Table IV.)*

Among the deaf the nutrition and clothing are better than last year, the boots less good.

They are a healthy set of children on the whole, and approach more nearly to the normal than any other class of defectives.

They also have the advantage of having their teeth and eyes attended to by the School Dentist and Oculist, but still much remains to be done.

In spite of public cleansing and continual work on the part of teachers and school nurses, there is little real progress in cleanliness, and I found more dirty heads, though not at the moment actually verminous, than I did last year. This applies alike to mentally and physically defective and deaf.

## PARTIALLY BLIND.

*(See Table V.)*

These children are healthy on the whole, and are obliged to be clean, as, if the attendant appointed for that purpose finds anything suspicious in the head, the child is sent home and not allowed into school.

Many of these children come from very poor homes, and their general nutrition is poor on admission, but after they have attended for some time as day pupils at the Royal Institution for the Blind their physical condition improves very much, due to the good dinners they get at the Institution.

The teachers and children resident in the Institution have been most kind in giving clothing and boots to the most necessitous children.

I was much helped at the examination by the Head Mistress and Head Master, and by the attendant.

C. E. O'CONNOR, M.B., Ch.B.,

*Superintendent of Special Schools.*

March, 1914

## SPECIAL SCHOOLS MEDICAL INSPECTION, 1913.

## TABLE I.

## MENTALLY DEFECTIVE.

Number examined 453.

|      |     |     | Nutrition. |     | Clothing. |     | Boots |
|------|-----|-----|------------|-----|-----------|-----|-------|
| Good | ... | ... | 168        | ... | 219       | ... | 238   |
| Fair | ... | ... | 200        | ... | 135       | ... | 84    |
| Bad  | ... | ... | 85         | ... | 99        | ... | 131   |

|  |     |
|--|-----|
| Defective Teeth ... ..                 | 294 |
| Defective Vision (216 examined) ... .. | 80  |
| Enlarged Tonsils ... ..                | 72  |
| Defective Hearing ... ..               | 60  |
| Defective Speech ... ..                | 59  |
| Nits in Head ... ..                    | 58  |
| Chronic Nasal Discharge ... ..         | 45  |
| Chronic Discharge from Ears ... ..     | 27  |
| Eye Defects, apart from vision ... ..  | 26  |
| Squint ... ..                          | 24  |
| Skin Diseases ... ..                   | 21  |
| Verminous ... ..                       | 20  |
| Heart Affections ... ..                | 19  |
| Rickets ... ..                         | 17  |
| Paralysis ... ..                       | 16  |
| Lung Affections ... ..                 | 15  |
| Epileptic ... ..                       | 3   |
| <hr/>                                  |     |
| Parents present ... ..                 | 239 |
| Advice given ... ..                    | 74  |

SPECIAL SCHOOLS MEDICAL INSPECTION, 1913.  
TABLE II.

PHYSICALLY DEFECTIVE.

Number examined 114.

|                                       | Nutrition. | Clothing. | Boots. |
|---------------------------------------|------------|-----------|--------|
| Good ... ..                           | 34         | 71        | 60     |
| Fair ... ..                           | 34         | 34        | 34     |
| Bad ... ..                            | 46         | 9         | 20     |
| <hr/>                                 |            |           |        |
| Defective Teeth ... ..                |            |           | 62     |
| Enlarged Tonsils ... ..               |            |           | 23     |
| Defective Vision ... ..               |            |           | 17     |
| Eye Defects, apart from vision ... .. |            |           | 12     |
| Nits in Head ... ..                   |            |           | 11     |
| Squint ... ..                         |            |           | 8      |
| Defective Hearing ... ..              |            |           | 6      |
| Speech Defects ... ..                 |            |           | 6      |
| Chronic Nasal Discharge ... ..        |            |           | 4      |
| Lung Affections ... ..                |            |           | 4      |
| Heart Disease ... ..                  |            |           | 2      |
| Verminous ... ..                      |            |           | 1      |
| Chronic Discharge from Ears ... ..    |            |           | 1      |
| <hr/>                                 |            |           |        |
| Parents present ... ..                |            |           | 90     |
| Advice given ... ..                   |            |           | 30     |

## SPECIAL SCHOOLS MEDICAL INSPECTION, 1913.

TABLE III.

PHYSICALLY DEFECTIVE—(continued).

Number examined 114.

*Diseases or Defects for which certified.**Tuberculous.*

|                                       |     |     |     |     |     |    |
|---------------------------------------|-----|-----|-----|-----|-----|----|
| Spinal Caries                         | ... | ... | ... | ... | ... | 19 |
| Hip Disease                           | ... | ... | ... | ... | ... | 9  |
| Knee Joint                            | ... | ... | ... | ... | ... | 8  |
| Ankle Joint                           | ... | ... | ... | ... | ... | 3  |
| Foot (metatarsal bones)               | ... | ... | ... | ... | ... | 1  |
| Femur (thigh bone)                    | ... | ... | ... | ... | ... | 1  |
| Pelvis                                | ... | ... | ... | ... | ... | 1  |
| Kidney                                | ... | ... | ... | ... | ... | 1  |
| Amputation of leg for tubercle        | ... | ... | ... | ... | ... | 1  |
| Total number of tuberculous cases ... |     |     |     |     |     | 44 |

*Non-tuberculous.*

|   |     |     |     |     |     |     |
|---|-----|-----|-----|-----|-----|-----|
| Infantile Paralysis                       | ... | ... | ... | ... | ... | 15  |
| Spastic Paralysis                         | ... | ... | ... | ... | ... | 12  |
| Rickets                                   | ... | ... | ... | ... | ... | 11  |
| Heart Disease                             | ... | ... | ... | ... | ... | 7   |
| Congenital Dislocation of Hips            | ... | ... | ... | ... | ... | 5   |
| Talipes (club-foot)                       | ... | ... | ... | ... | ... | 4   |
| Hemiplegia                                | ... | ... | ... | ... | ... | 4   |
| Rheumatism                                | ... | ... | ... | ... | ... | 2   |
| Congenital absence of fingers             | ... | ... | ... | ... | ... | 2   |
| Scoliosis                                 | ... | ... | ... | ... | ... | 1   |
| Amputation of leg, from accident          | ... | ... | ... | ... | ... | 1   |
| Fragilitas Ossium                         | ... | ... | ... | ... | ... | 1   |
| Jaundice                                  | ... | ... | ... | ... | ... | 1   |
| Amputation of arms, from accident         | ... | ... | ... | ... | ... | 1   |
| Elephantiasis                             | ... | ... | ... | ... | ... | 1   |
| Lupus                                     | ... | ... | ... | ... | ... | 1   |
| Osteitis                                  | ... | ... | ... | ... | ... | 1   |
| Total number of non-tuberculous cases ... |     |     |     |     |     | 70  |
| Tuberculous                               | ... | ... | ... | ... | ... | 44  |
| Non-tuberculous                           | ... | ... | ... | ... | ... | 70  |
| Total ...                                 |     |     |     |     |     | 114 |

## SPECIAL SCHOOLS MEDICAL INSPECTION, 1913.

TABLE IV.

|                             |     | DEAF.               |     |           |     |       |
|-----------------------------|-----|---------------------|-----|-----------|-----|-------|
|                             |     | Number examined 41. |     |           |     |       |
|                             |     | Nutrition.          |     | Clothing. |     | Boots |
| Good                        | ... | 24                  | ... | 27        | ... | 32    |
| Fair                        | ... | 14                  | ... | 11        | ... | 4     |
| Bad                         | ... | 3                   | ... | 3         | ... | 5     |
| <hr/>                       |     |                     |     |           |     |       |
| Defective Teeth             | ... | ...                 | ... | ...       | ... | 13    |
| Nits in Head                | ... | ...                 | ... | ...       | ... | 6     |
| Defective Vision            | ... | ...                 | ... | ...       | ... | 6     |
| Chronic Discharge from Ears | ... | ...                 | ... | ...       | ... | 5     |
| Enlarged Tonsils            | ... | ...                 | ... | ...       | ... | 4     |
| Rickets                     | ... | ...                 | ... | ...       | ... | 4     |
| Paralysis                   | ... | ...                 | ... | ...       | ... | 2     |
| Chronic Nasal Discharge     | ... | ...                 | ... | ...       | ... | 1     |
| Lung Affections             | ... | ...                 | ... | ...       | ... | 1     |
| Heart Affections            | ... | ...                 | ... | ...       | ... | 1     |
| <hr/>                       |     |                     |     |           |     |       |
| Parents present             | ... | ...                 | ... | ...       | ... | 20    |
| Advice given                | ... | ...                 | ... | ...       | ... | 3     |

## SPECIAL SCHOOLS MEDICAL INSPECTION, 1913.

TABLE V.

|                             |     | PARTIALLY BLIND.    |     |           |     |        |
|-----------------------------|-----|---------------------|-----|-----------|-----|--------|
|                             |     | Number examined 16. |     |           |     |        |
|                             |     | Nutrition.          |     | Clothing. |     | Boots. |
| Good                        | ... | 3                   | ... | 7         | ... | 13     |
| Fair                        | ... | 7                   | ... | 8         | ... | 0      |
| Bad                         | ... | 6                   | ... | 1         | ... | 3      |
| <hr/>                       |     |                     |     |           |     |        |
| Defective Teeth             | ... | ...                 | ... | ...       | ... | 11     |
| Enlarged Tonsils            | ... | ...                 | ... | ...       | ... | 2      |
| Nits in Head                | ... | ...                 | ... | ...       | ... | 1      |
| Chronic Discharge from Ears | ... | ...                 | ... | ...       | ... | 1      |
| Defective Hearing           | ... | ...                 | ... | ...       | ... | 1      |
| Rickets                     | ... | ...                 | ... | ...       | ... | 1      |
| Skin Disease                | ... | ...                 | ... | ...       | ... | 1      |
| <hr/>                       |     |                     |     |           |     |        |
| Parents present             | ... | ...                 | ... | ...       | ... | 9      |
| Advice given                | ... | ...                 | ... | ...       | ... | 1      |



